# XR-C9100R

# SERVICE MANUAL

*AEP Model*
*UK Model*

| | |
|---|---|
| Model Name Using Similar Mechanism | XR-C8100R |
| Tape Transport Mechanism Type | MG-25D-136 |

## SPECIFICATIONS

### Cassette player section

Tape track 4-track 2-channel stereo
Wow and flutter 0.08 % (WRMS)
Frequency response 30 - 20,000 Hz
Signal-to-noise ratio

| Cassette type | Dolby B NR | Dolby C NR | Dolby NR off |
|---|---|---|---|
| TYPE II, IV | 67 dB | 73 dB | 61 dB |
| TYPE I | 64 dB | 70 dB | 58 dB |

### Tuner section

**FM**

Tuning range 87.5 -108.0 MHz
Antenna terminal External antenna connector
Intermediate frequency 10.7 MHz
Usable sensitivity 8 dBf
Selectivity 75 dB at 400 kHz
Signal-to-noise ratio 65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz 0.7% (stereo), 0.4% (mono)
Separation 35 dB at 1 kHz
Frequency response 30 - 15,000 Hz

**MW/LW (AEP, UK model)**

Tuning range MW: 531 - 1,602 kHz
LW: 153 - 281 kHz
Aerial terminal External aerial connector
Intermediate frequency 10.71 MHz/450 kHz
Sensitivity MW: 30 µV
LW: 50 µV

**MW/SW (German model)**

Tuning range MW: 531 - 1,602 kHz
SW: 5,950 - 6,205 kHz
Aerial terminal External aerial connector
Intermediate frequency 10.71 MHz/450 kHz
Sensitivity MW: 30 µV
SW: 50 µV

### Power amplifier section

Outputs Speaker outputs (sure seal connectors)
Speaker impedance 4 - 8 ohms
Maximum power output 45 W × 4 (at 4 ohms)

– Continued on next page –

## FM/MW/LW CASSETTE CAR STEREO
**AEP, UK Model**

## FM/MW/SW CASSETTE CAR STEREO
**German Model**

MICROFILM

SONY®

**General**

| | |
|---|---|
| Outputs | Line outputs (2)<br>Subwoofer output<br>Power antenna relay control lead<br>Power amplifier control lead<br>Telephone ATT control lead<br>Illumination control lead |
| Tone controls | Bass ±8 dB at 100 Hz<br>Treble ±8 dB at 10 kHz |
| Power requirements | 12 V DC car battery (negative ground) |
| Dimensions | Approx. 178 × 50 × 180 mm (w/h/d) |
| Mounting dimensions | Approx. 182 × 53 × 160 mm (w/h/d) |
| Mass | Approx. 1.5 kg |
| Supplied accessories | Rotary commander RM-X4V (1)<br>Microphone (1)<br>Parts for installation and connections (1 set)<br>Front panel case (1) |

*Design and specifications are subject to change without notice.*

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**Notes on Chip Component Replacement**

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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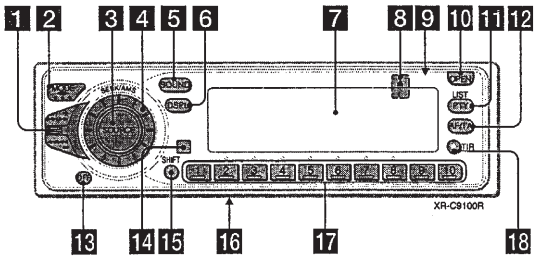
# SECTION 1
# GENERAL

This section is extracted AEP, UK model's from instruction manual.

## Location of controls

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Refer to the pages for details.

1 **SEEK/AMS (seek/Automatic Music Sensor/manual search/voice drive/voice memo select) control** 9, 11, 13, 16, 17, 19, 21, 26, 27, 28, 31

2 **MODE (◄II►)button**
**During tape playback:** Playback direction change 8, 9
**During tuner reception:** BAND select 10, 11
**During CD or MD playback:** CD/MD unit select 25, 27, 30

3 **SOURCE (TAPE/TUNER/CD/MD) button** 8, 10, 11, 14, 24, 25, 27, 30, 33, 35, 36

4 **Dial (volume/subwoofer volume/ surround menu/listening position/bass/ treble/left-right/rear-front control)** 7, 15, 16, 23, 29, 33, 34, 35, 36

5 **SOUND button** 23, 33, 34, 35, 36

6 **DSPL (display mode change) button** 9, 11, 12, 25, 30, 31

7 **Display window**

8 **⏏ (eject) button (located on the front side of the unit behind by the front panel)** 8

9 **Reset button (located on the front side of the unit behind by the front panel)** 6

10 **OPEN button** 6, 8, 38

11 **PTY/LIST button**
Disc Memo 29, 30
DSP Custom File 33
List-up 31
RDS Programme 17

12 **AF/TA button** 12, 13, 14, 15

13 **OFF button** 6, 8

14 **Sensor for the optional wireless remote**

15 **SHIFT button**
PLAY MODE 9, 10, 11, 13, 15, 26, 27, 28, 29, 31, 32, 33
REP 10, 26
SET UP 7, 18, 24, 25, 36
SHUF 26

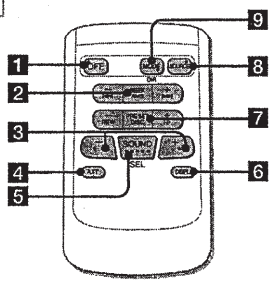
16 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT Switch" in the Installation/Connections manual.

17 **During radio reception:** Number buttons 11, 13, 15
**During CD/MD playback:** Direct disc selection buttons 26

18 **TIR button** 15, 16

4

***Optional wireless remote (RM-X47)***

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**The buttons of the wireless remote control the same functions as those on this unit.**

1 **OFF button**
2 **SEEK/AMS button**
3 **⊖ ⊕ buttons**
4 **ATT button**
5 **SOUND/SEL button**
6 **DSPL button**
7 **PRESET/DISC button**
*You cannot do manual search and manual tuning with the remote.*
8 **SOURCE button**
9 **MODE/DIR button**
(MODE) controls the same function on this unit.

When the POWER SELECT switch is set to the Ⓑ position, the unit cannot be operated with the wireless remote unless (SOURCE) on the unit is pressed or a cassette is inserted to activate the unit first.

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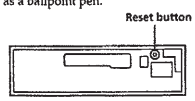
# Getting Started

## Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ballpoint pen.




*Note*
*Pressing the reset button will erase the clock and some memorised functions.*

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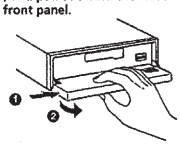
## Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

1 Press (OFF).

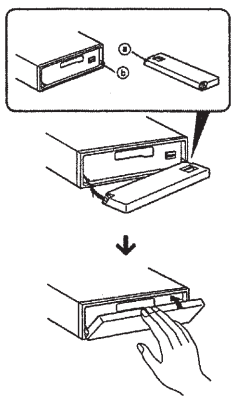
2 Press (OPEN) to open up the front panel, then slide the front panel to the right side, and pull out from the left side of the front panel.



*Notes*
- *Do not place anything on the inner surface of the front panel.*
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you detach the panel while the unit is still on, the power will turn off automatically to prevent the speakers from being damaged.*
- *When you carry the front panel with you, put it in the supplied front panel case.*

### Attaching the front panel

Place the hole ⓐ in the front panel onto the spidle ⓑ on the unit as illustrated, then push the left side in.



*Notes*
- *Be sure not to attach the front panel upside down.*
- *Do not press the front panel hard against the unit when attaching it. Press it lightly against the unit.*
- *Do not press hard or put excessive pressure on the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight where there may be a considerable rise in temperature.*

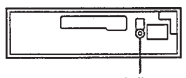
6

### Caution alarm

If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch on the bottom of the unit is set to the Ⓐ position).

### TIR indicator

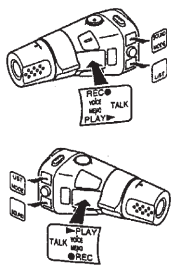
If you pull out the ignition key while the TIR function is on, the TIR indicator flashes a few times. (only when the POWER SELECT switch on the bottom of the unit is set to the Ⓐ position).




For more information on the TIR function, refer to "Recording the traffic announcements" (page 15).

## Preparing the rotary commander

When you mount the rotary commander, attach the labels as shown in the illustration below.

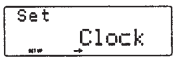



## Setting the clock

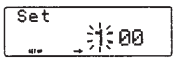
The clock uses a 24-hour digital indication.

Example: To set the clock to 10:08

1 Press (SHIFT), then press (3) (SET UP).

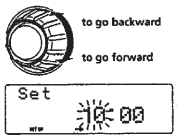



❶ Press (5) (→).

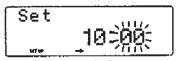



The hour digit flashes.

❷ Set the hour.

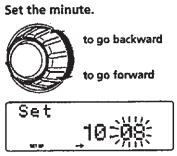



❸ Press (5) (→).




The minute digits flash.

❹ Set the minute.

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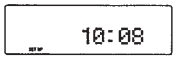
Getting Started

7

continue to next page →

2 Press (SHIFT).




The clock starts.

3 Press (SHIFT).
After the mode setting is complete, the display returns to normal playback mode.

*Note*
*If the POWER SELECT switch on the bottom of the unit is set to the ⓑ position, turn the power on first, then set the clock.*

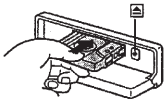




# Cassette Player

## Listening to a tape

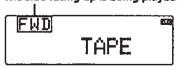
1 Press (OPEN) and insert a cassette.
Playback starts automatically.



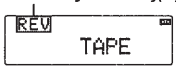
2 Close the front panel.

If a cassette is already inserted, press (SOURCE) repeatedly until "FWD" or "REV" appears to start playback.

The side facing up is being playback.




The side facing down is being playback.




*Tips*
- *To change the tape's playback direction, press (MODE) (◀II▶).*
- *"Metal" appears in the display when you insert a metal or CrO2 tape (Auto Metal function).*

| To | Press |
|---|---|
| Stop playback | (OFF) |
| Eject the cassette | (OPEN) then ⏏ |

### Fast-winding the tape

During playback, push the SEEK/AMS control up or down and hold.

Fast-forward

Rewind

To start playback during fast-forwarding or rewinding, press (MODE).

### Locating a specific track — Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, push the SEEK/AMS control up or down momentarily.

To locate succeeding tracks

To locate preceding tracks

*Note*
*The AMS function may not work when:*
- *the blanks between tracks are shorter than four seconds*
- *there is noise between tracks*
- *there are long sections of low volume or quiet sections.*

### Changing the display item

Each time you press (DSPL), the item changes as follows:

Tape playback → Clock → MOTION DISPLAY*2 → Frequency*1 → Tape playback

*1 *While the AFITA function is activated.*
*2 *All the items above are scrolled in the display one by one in order.*

## Playing a tape in various modes

You can play the tape in various modes:
- Intro (Intro Scan) lets you play the first 10 seconds of all the tracks.
- NR (Dolby NR) lets you select the Dolby* NR B or C system.
- B. Skip (Blank Skip) skips blanks longer than eight seconds.
- ATA (Automatic Tuner Activation) turns on the tuner automatically while fast-winding the tape.
- Repeat (Repeat Play) repeats the current track.

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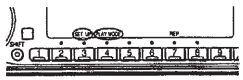
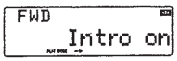
### Searching for the desired track — Intro scan

1 Press (SHIFT).
Every time you press (SHIFT), only the items you can select light up.



2 Press (4) (PLAY MODE) repeatedly until "Intro" appears.
Each time you press (4) (PLAY MODE), the item changes as follows:
Intro → NR → B. Skip → ATA

3 Press (5) (→) to select "Intro on."




Intro Scan starts.

4 Press (SHIFT).

To go back to normal playback mode, select "Intro off" in step 3 above.

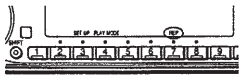




### Playing tracks repeatedly — Repeat Play

1 During playback, press (SHIFT).

2 Press (7) (REP) repeatedly until "Repeat" appears.



Repeat Play starts.

3 Press (SHIFT).

To go back to normal playback mode, select "Repeat off" in step 2 above.





# Radio

## Memorising stations automatically

### — Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorises them in the order of their frequencies. You can store up to 10 stations on each band (FM1, FM2, MW, and LW).

**Caution**
When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

1 Press (SOURCE) repeatedly to select the tuner.
Each time you press (SOURCE), the source changes as follows:
TAPE ⟷ TUNER

2 Press (MODE) repeatedly to select the band.
Each time you press (MODE), the band changes as follows:
FM1 → FM2 → MW → LW

3 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "B.T.M" appears.

4 Press (5) (→).
The unit stores stations in the order of their frequencies on the number buttons.
A beep sounds when the setting is stored.

5 Press (SHIFT).

*Notes*
- *The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.*
- *When a number is indicated in the display, the unit starts storing stations from the one currently displayed.*

## Memorising only the desired stations

You can preset up to 20 FM stations (10 for FM1 and 10 for FM2) and up to 10 MW stations, and up tp 10 LW stations in the order of your choice.

1 Press (SOURCE) repeatedly to select the tuner.

2 Press (MODE) repeatedly to select the band (FM1, FM2, MW, or LW).

3 Push the SEEK/AMS control up or down to tune in the station you want to store on the number button.

4 Press and hold the desired number button (1 to 10) until "MEM" appears.
The number button indication appears in the display.

*Note*
*If you try to store another station on the same number button, the previously stored station will be erased.*

## Receiving the memorised stations

1 Press (SOURCE) repeatedly to select the tuner.

2 Press (MODE) repeatedly to select the band (FM1, FM2, MW, or LW).

3 Press the number button (1 to 10) momentarily where the desired station is stored.

### If you cannot tune in a preset station

Push the SEEK/AMS control up or down momentarily to search for the station (automatic tuning).
Scanning stops when the unit receives a station. Push the SEEK/AMS control up or down repeatedly until the desired station is received.

*Note*
*If the automatic tuning stops too frequently, press (SHIFT), then press (4) (PLAY MODE) repeatedly until "Local" (local seek mode) is displayed. Then press (5) (→) to select "Local on." Press (SHIFT). Only the stations with relatively strong signals will be tuned in.*

*Tip*
*If you know the frequency of the station you want to listen to push the SEEK/AMS control up or down and hold until the desired frequency appears (manual tuning).*

### If FM stereo reception is poor — Monaural Mode

1 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "Mono" appears.

2 Press (5) (→) repeatedly until "Mono on" appears.
The sound improves, but becomes monaural ("ST" disappears).

3 Press (SHIFT).

To return to normal mode, select "Mono off" in step 2 above.

### Changing the display item

Each time you press (DSPL), the item changes as follows:

Frequency (Station Name)*1 → Clock → MOTION DISPLAY*2 → Frequency (Station Name)*1

*1 *When you tune in an FM station that transmits RDS data, the station name appears.*
*2 *All the itmes above are scrolled in the display one by one in order.*

# RDS

## Overview of the RDS function

Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal. Your car stereo offers you a variety of services. Here are just a few: re-tuning the same programme automatically, listening to traffic announcements and locating a station by programme type.

*Notes*
- *Depending on the country or region, not all of the RDS functions are available.*
- *RDS may not work properly if the signal strength is weak or if the station you are tuned to is not transmitting RDS data.*

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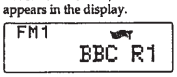
## Displaying the station name

The name of the current station lights up in the display.

**Select an FM station (page 10).**
When you tune in an FM station that transmits RDS data, the station name appears in the display.




*Note*
*The "*" indication means that an RDS station is being received.*

### Changing the display item

Each time you press (DSPL), the item changes as follows:

Station Name (Frequency) → Clock → MOTION DISPLAY* → Station Name (Frequency)

** All the items above are scrolled in the display one by one in order.*

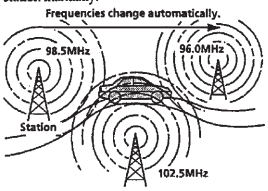
*Note*
*"NO Name" appears if the received station does not transmit RDS data.*



## Re-tuning the same programme automatically

**— Alternative Frequencies (AF)**

The Alternative Frequencies (AF) function automatically selects and re-tunes the station with the strongest signal in a network. By using this function, you can continuously listen to the same programme during a long-distance drive without having to re-tune the station manually.




**1 Select an FM station (page 10).**

**2 Press (AF/TA) repeatedly until "AF on" appears.**
The unit starts searching for an alternative station with a stronger signal in the same network.

*Note*
*When there is no alternative station in the area and you do not need to search for an alternative station, turn the AF function off by pressing (AF/TA) repeatedly until "AF TA off" appears.*

### Changing the display item

Each time you press (AF/TA), the item changes as follows:

AF on → TA on → AF TA on* → AF TA off → AF on

** Select this to turn on both the AF and TA functions.*

*Notes*
- *"NO AF" and the station name flash alternately, if the unit cannot find an alternative station in the network.*
- *If the station name starts flashing after selecting a station with the AF function on, this indicates that no alternative frequency is available. Push the SEEK/AMS control up or down while the station name is flashing (within eight seconds). The unit starts searching for another frequency with the same PI (Programme Identification) data ("PI seek" appears and no sound is heard). If the unit cannot find another frequency, "NO PI" appears, and the unit returns to the originally selected frequency.*

### Listening to a regional programme

The "REG on" (regional on) function lets you stay tuned to a regional programme without being switched to another regional station. (Note that you must turn the AF function on.) The unit is factory preset to "REG on," but if you want to turn off the function, do the following.

**1 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "REG" appears.**

**2 Press (5) (→) repeatedly until "REG off" appears.**

**3 Press (SHIFT).**
Note that selecting "REG off" might cause the unit to switch to another regional station within the same network.

To return to regional on, select "REG on" in step 2 above.

*Note*
*This function does not work in the United Kingdom and in some other areas.*

### Local link function (United Kingdom only)

The Local Link function lets you select other local stations in the area, even if they are not stored on your number buttons.

**1 Press a number button that has a local station stored on it.**

**2 Within five seconds, press the number button of the local station again.**

**3 Repeat this procedure until the desired local station is received.**

EN
RDS



## Listening to traffic announcements

The Traffic Announcement (TA) and Traffic Programme (TP) data let you automatically tune in an FM station that is broadcasting traffic announcements even though you are listening to other programme sources.

**Press (AF/TA) repeatedly until "TA on" or "AF TA on" appears.**
The unit starts searching for traffic information stations. "TP" appears in the display when the unit finds a station broadcasting traffic announcements. When the traffic announcement starts, "TA" flashes. The flashing stops when the traffic announcement is over.

*Tip*
*If the traffic announcement starts while you are listening to another programme source, the unit automatically switches to the announcement and goes back to the original source when the announcement is over.*

EN

*Notes*
- *"NO TP" flashes for five seconds if the received station does not broadcast traffic announcements. Then, the unit starts searching for a station that broadcasts traffic announcements.*
- *When "EON" appears with "TP" in the display, the current station makes use of broadcast traffic announcements by other stations in the same network.*
- *While the unit is receiving the traffic announcements, the voice drive function and voice memo function do not work.*

### To cancel the current traffic announcement

**Press (AF/TA) or (SOURCE) momentarily.**
To cancel all traffic announcements, turn off the function by pressing (AF/TA) until "AF TA off" appears.

### Presetting the volume of traffic announcements

You can preset the volume level of the traffic announcements beforehand so you won't miss the announcement. When a traffic announcement starts, the volume will be automatically adjusted to the preset level.

**1 Select the desired volume level.**

**2 Press (AF/TA) for two seconds.**
"TA" appears and the setting is stored.

### Receiving emergency announcements

If an emergency announcement comes in while you are listening to the radio, the programme will automatically switch to the announcement. If you are listening to a source other than the radio, the emergency announcements will be heard if you set AF or TA to on. The unit will then automatically switch to these announcements no matter which source you are listening to at the time.

## Presetting the RDS stations with the AF and TA data

When you preset RDS stations, the unit stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in the preset station. You can select a different setting (AF, TA, or both) for individual preset station, or the same setting for all preset stations.

### Presetting the same setting for all preset stations

**1 Select an FM band (page 10).**

**2 Press (AF/TA) repeatedly to select either "AF on," "TA on" or "AF TA on" (for both AF and TA functions).**
Note that selecting "AF TA off" stores not only RDS stations, but also non-RDS stations.

**3 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "B.T.M" appears.**

**4 Press (5) (→) until "B.T.M" flashes.**

**5 Press (SHIFT).**

### Presetting different settings for each preset station

**1 Select an FM band, and tune in the desired station.**

**2 Press (AF/TA) repeatedly to select either "AF on," "TA on" or "AF TA on" (for both AF and TA functions).**

**3 Press the desired number button and hold until "MEM" appears.**
Repeat from step 1 to preset other stations.

*Tip*
*If you want to change the preset AF and/or TA setting after you tune in the preset station, you can do so by turning the AF or TA function on or off.*

## Recording the traffic announcements

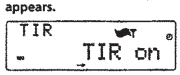
**—Traffic Information Replay (TIR)**

You can listen to the latest traffic announcements by recording them. The unit automatically records and stores up to eight traffic announcements. If the recording exceeds eight minutes, the recorded announcements are updated, so you can always hear the latest information.
The TIR function turns on the unit automatically and records the traffic announcements for up to two hours before and after a preset time.

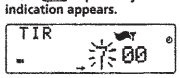
### Presetting the time and the station

**1 Press and hold (TIR) until "TIR" lights up in the display.**

**2 Press (5) (→) repeatedly until "TIR on" appears.**




**3 Press (TIR) repeatedly until the time indication appears.**



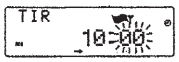

**❶ Set the hour by rotating the dial.**

EN
RDS



continue to next page →

❷ Press (5) (→) until the minute digits flash.

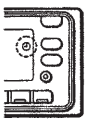



❸ Set the minute by rotating the dial.

4 Press (TIR).

5 Select the desired station by pressing the preset number button or pushing the SEEK/AMS control up or down.

6 Press (TIR) for two seconds to return to the original display.
⏲ lights up.



The unit turns on automatically and stands by for traffic announcements for four hours (two hours before and after the preset time).
If the preset station does not broadcast the traffic announcement while searching, the unit starts searching for other traffic programme (TP) stations.

### To cancel the TIR function

Select "TIR off" in step 2 above.

*Tips*
- *While the unit is recording the traffic announcement, ⏲ and "TA" flash.*
- *If the unit still cannot find a TP station, it starts a new search every five minutes until it finds one.*
- *If you pull out the ignition key while the TIR function is on, "TIR on" and ⏲ flash a few times.*

*Notes*
- *The unit also stands by for traffic announcements for two hours after you turn off the engine, as long as the TIR function is on.*
- *If you have a power aerial, it automatically extends every time the unit searches for a traffic programme station.*
  *If you have a manual aerial, make sure that the aerial is fully extended.*
- *If you do not use your car for about ten days, the TIR function will turn off automatically to avoid battery wear, even if the TIR function is on.*
- *While the unit is recording or playing back the traffic announcements, the voice drive function and voice memo function do not work.*

### Playing back the recorded traffic announcements

When there are recorded traffic announcements you have not listened to yet, ⏲ flashes.

1 Press (TIR).
The latest traffic announcement is played back. To listen to the previous ones, press (TIR) or push the SEEK/AMS control up. To replay the announcements, push the SEEK/AMS control down.
"NO Data" appears if no traffic announcements were recorded.

2 Press (TIR) to return to the original programme.



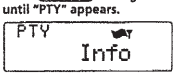
## Locating a station by programme type

You can locate the station you want by selecting one of the programme types shown below.

| Programme types | Display |
|---|---|
| News | News |
| Current Affairs | Affairs |
| Information | Info |
| Sports | Sport |
| Education | Educate |
| Drama | Drama |
| Culture | Culture |
| Science | Science |
| Varied | Varied |
| Popular Music | Pop M |
| Rock Music | Rock M |
| Middle of the Road Music | M.o.R.M |
| Light Classical | Light M |
| Classical | Classics |
| Other Music Type | Other M |
| Weather | Weather |
| Finance | Finance |
| Children's Programmes | Children |
| Social Affairs | Social A |
| Religion | Religion |
| Phone In | Phone In |
| Travel | Travel |
| Leisure | Leisure |
| Jazz Music | Jazz |
| Country Music | Country |
| National Music | Nation M |
| Oldies Music | Oldies |
| Folk Music | Folk M |
| Documentary | Document |
| Not specified | None |

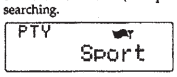
*Note*
*You cannot use this function in some countries where no PTY (Programme Type selection) data is available.*

1 Press (PTY/LIST) during FM reception until "PTY" appears.




The current programme type name appears if the station is transmitting the PTY data. "-----" appears if the received station is not an RDS station, or if the RDS data has not been received.

2 Press (PTY/LIST) repeatedly until the desired programme type appears.
The programme types appear in the order shown in the above table. Note that you cannot select "None" (Not specified) for searching.




3 Push the SEEK/AMS control up or down.
The unit starts searching for a station broadcasting the selected programme type. When the unit finds the programme, the programme type appears again for five seconds.
"NO" and the programme type appear alternately for five seconds if the unit cannot find the programme type. It then returns to the previous station.

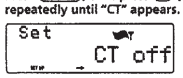




## Setting the clock automatically

The CT (Clock Time) data from the RDS transmission sets the clock automatically.

1 Press (SHIFT), then press (3) (SET UP) repeatedly until "CT" appears.




2 Press (5) (→) repeatedly until "CT on" appears.
The clock is set.

3 Press (SHIFT) to return to the normal display.

### To cancel the CT function

Select "CT off" in step 2 above.

*Notes*
- *The CT function may not work even though an RDS station is being received.*
- *There might be a difference between the time set by the CT function and the actual time.*

## Voice Drive

You can register an appropriate vocal phrase for any source including CD/MD*, and the radio station. Once the registration is completed, you can request that source just by pronouncing the registered vocal phrase for it towards the supplied microphone. This unit provides 12 "V Drive" boxes for accommodating registered phrases.

* *When you connect to a CD/MD changer with a PGM (Programme memory) function, you can request a disc in the CD/MD changer.*

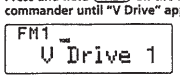
Use the rotary commander to control this function.

*Note*
*While the unit is receiving, recording, or playing back the traffic announcements, the voice drive function does not work.*

## Selecting a "V Drive" box for registration

1 Play a CD or MD, or tune in a radio station that you wish to register a phrase for.

2 Press and hold (TALK) on the rotary commander until "V Drive" appears.



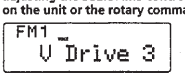

*Note*
*When the unit enters the setting mode, the disc playback or the radio reception will be suspended.*

*Tip*
*If the "V Drive" box selected in step 2 already has a registered phrase, the source corresponding to it will be played or tuned in.*





3 Select a "V Drive" box for registration by adjusting the SEEK/AMS control either on the unit or the rotary commander.

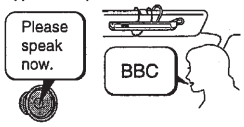



*Tip*
*If you select an already registered box number, the registered source will be played or tuned in to.*

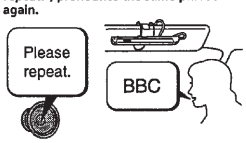
## Registering a vocal phrase

1 Once all the steps of "Selecting a "V Drive" box for registration" are completed, press (TALK) on the rotary commander .

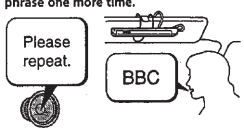
2 After you hear the unit's vocalized instruction "Please speak now." pronounce a desired phrase toward the supplied microphone.




3 After the vocalized instruction "Please repeat.", pronounce the same phrase again.




4 After another vocalized instruction "Please repeat.", pronounce the same phrase one more time.




The unit records the vocal phrase in this step in order to identify the registered phrase later. When the unit answers "OK!", the registration is completed.

*Notes*
- *Do not attempt to register while driving, as this may create a traffic hazard.*
- *Be sure to reply after the unit's vocalized instruction.*
- *When a beep sound is heard, the registration failed. In this case, repeat the same process starting from step 1.*
- *Do not use phrases of similar pronunciation such as "Sony POPS 1" and "Sony POPS 2", because the unit may not be able to distinguish the difference.*
- *After you hear the unit's vocalized instruction, reply within three seconds.*

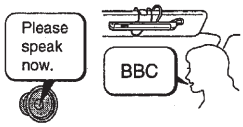
*Tips*
- *When you register the phrases, pronounce them clearly and loudly to make it easier for the unit to recognize them.*
- *Registration should be made while the car is parked with the engine running so that the unit will recognize your voice more easily when you are driving.*
- *Though the vocalized instructions are in English, any language can be used for registration.*
- *The volume of the vocalized instructions can be adjusted on the unit or by the rotary commander.*

## Requesting a registered source

You can request a registered source while listening to other sources or during the clock display.

**1 Press (TALK) on the rotary commander.**

**2 After you hear the unit's vocalized instruction "Please speak now.", pronounce the registered phrase such as the disc name or the radio station.**




**3 When the unit successfully recognized the phrase;**
The unit will play the disc or tune in the radio station.

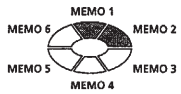
**When the unit fails to recognize the phrase;**
The unit replies "Please speak again."
In this case, repeat the same registered phrase.

*Notes*
- *When the unit fails to recognize the phrase three times, a beep sounds and the unit returns to the previous source. In this case, repeat the same process starting from step 1.*
- *If it is noisy outside the car, the unit may not recognize the registered phrase. In this case, close the window and try again.*
- *If you are far from the microphone, speak louder or come nearer to the microphone.*

*Tips*
- *If you do not reply within three seconds after the vocalized instruction, the unit replies "Please speak now."*
- *When you are requesting a registered source, pronounce clearly and loudly to make it easier for the unit to recognize.*
- *When the unit has difficulty recognizing the phrase, register the vocal phrase again.*

# Voice Memo

Voice Memo is a function that allows you to record a voiced memorandum, such as the name of a song heard on a radio program or an idea which comes to mind. You can record up to six voice memos with this function. Note that each voice memo must be within 15 seconds.




You can record or play back the voice memo when listening to any source or during the clock display.

Use the rotary commander to control this function.

*Note*
*While the unit is receiving, recording, or playing back the traffic announcements, the voice memo function does not work.*

## Recording a voice memo

**1 Press (REC) on the rotary commander and voice your memorandum toward the supplied microphone.**

**2 The recording is completed by pressing (REC) again or leaving the unit untouched for 15 seconds.**

*Notes*
- *The voice memos are recorded as "MEMO 1", "MEMO 2", etc.,...in the order they are recorded.*
- *When a beep sounds and "MEMO FULL" appears, it means there is no room for additional voice memos. In such a case, erase the older recorded voice memos before recording new ones.*

## Playing back the voice memo

**1 Press (PLAY) on the rotary commander.**
The playback starts from MEMO 1.

**2 Select the desired voice memo using the SEEK/AMS control.**

**3 Adjust the volume on the main unit or by using the rotary commander.**
The unit automatically returns to the previous source after playing back all of the voice memos.

### To interrupt the playback of a voice memo

Press (PLAY) on the rotary commander.
Playback stops and the unit automatically returns to the previous source.

## Erasing the voice memo

**1 Play back the voice memo to be erased.**

**2 Press and hold (PLAY) on the rotary commander until a beep sound is heard.**

The voice memo will be erased and the numbers of succeeding voice memos will move up respectively.

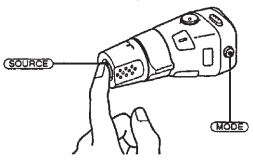
Erasing "MEMO 3" → "MEMO 4" moves up to "MEMO 3."

# Other Functions

## Using the rotary commander

The rotary commander works by pressing buttons and/or rotating controls.
You can control an optional CD or MD unit with the rotary commander.

### By pressing buttons (the SOURCE and MODE buttons)




**Each time you press (SOURCE), the source changes as follows:**
TAPE → TUNER → CD → MD

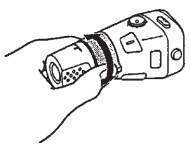
**Pressing (MODE) changes the operation in the following ways;**
- **Tape playback direction**
- **Tuner : FM1 → FM2 → MW → LW**
- **CD unit : CD1 → CD2 → ...**
- **MD unit : MD1 → MD2 → ...**

*Tip*
*When the POWER SELECT switch is set to position B, you can turn on this unit by pressing (SOURCE) on the rotary commander.*



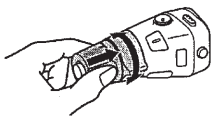


### By rotating the control (the SEEK/AMS control)



**Rotate the control momentarily and release it to:**
- Locate the beginnings of the tracks on the tape. Rotate and hold the control, and release it to fast-wind the tape. To playback, rotate and hold the control again, and release it.
- Locate a specific track on a disc. Rotate and hold the control until you lacate the specific point in a track, then release it to start playback.
- Tune in stations automatically. Rotate and hold the control to tune in a specific station.

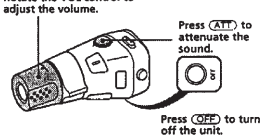
### By pushing in and rotating the control (the PRESET/DISC control)

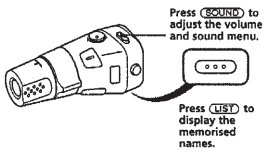


**Push in and rotate the control to:**
- Receive the stations memorised on the number buttons.
- Change the disc.
- Fast-winds the tape.

### Other operations

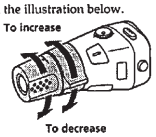
**Rotate the VOL control to adjust the volume.**



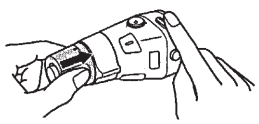


Press (SOUND) to adjust the volume and sound menu.
Press (LIST) to display the memorised names.
Press (REC) to record a voice memo.
Press and hold (TALK) to select a "V Drive" box for registration.
Press to :
• Register a vocal phrase.
• Request a registered source.
Press (PLAY) to play back the voice memo.
Press and hold (PLAY) to erase the voice memo.

### Changing the operative direction

The operative direction of controls is factory-set as in the illustration below.




If you need to mount the rotary commander on the right side of the steering column, you can reverse the operative direction.



**Press (SOUND) for two seconds while pushing the VOL control.**

*Tip*
*You can control the operative direction of controls with the unit (see "Changing the sound and display settings" on page 23).*

## Adjusting the sound characteristics

You can adjust the bass, treble, balance and fader.
You can store the bass and treble levels independently for each source.

**1 Select the item you want to adjust by pressing (SOUND) repeatedly.**
VOL (volume) → SUB (subwoofer volume) → BAS (bass) → TRE (treble) → BAL (left-right) → FAD (front-rear)

**2 Adjust the selected item by rotating the dial.**
Adjust within three seconds after selecting the item. (After three seconds, the dial function reverts to volume control.)

## Attenuating the sound

**Press (ATT) on the rotary commander or wireless remote.**
"ATT on" flashes momentarily.

To restore the previous volume level, press (ATT) again.

*Tip*
*The unit decreases the volume automatically when a telephone call comes in (Telephone ATT function).*

## Changing the sound and display settings

The follow items can be set:
- Clock (page 7).
- CT (Clock Time) (page 18).
- D.Info (Dual Information) – to display the clock and the play mode at the same time (ON) or to display the information alternately (OFF).
- Amber/Green – to change the illumination color to amber or green.
- Dimmer – to change the brightness of the display.
  - — Select "Auto" to dim the display only when you turn the lights on.
  - — Select "on" to dim the display.
  - — Select "off" to deactivate Dimmer.
- Contrast – to adjust the contrast if the indications in the display are not recognizable because of the unit's installed position.
- Voice guide function for vocalized comments.
  - — Select "Voice 1" to minimize the volume of the guide.
  - — Select "Voice 2" to be louder the volume than "Voice 1."
  - — Select "Voice 3" to maximize the volume of the guide.
  - — Select "Voice off" to deactivate Voice guide.
- Beep – to turn on or off the beeps.
- RM (Rotary Commander) – to change the operative direction of the controls of the rotary commander.
  - — Select "norm" to use the rotary commander as the factory-set position.
  - — Select "rev" when you mount the rotary commander on the right side of the steering column.
- Loud (Loudness) – to enjoy bass and treble even at low volume. The bass and treble will be reinforced.
- LPF (Low Pass Filter) (page 24).
- A.Scrl (Auto Scroll) (page 25).

1 Press (SHIFT).

2 Press ③ (SET UP) repeatedly until the desired item appears.

Each time you press ③ (SET UP), the item changes as follows:

Clock → CT → D.Info* → Amber/Green → Dimmer → Contrast → Voice* → Beep → RM → Loud* → LPF* → A.Scrl*

* *When the radio is off, or when there is no tape, CD, or MD being played, these items will not appear.*

*Notes*
- *The displayed item will differ depending on the source.*
- *If an optional digital preamplifier is connected to the unit, Voice Guide does not work.*

3 Press ⑤ (→) to select the desired setting (for example: on or off).
For the "Contrast" setting, pressing ⑤ (→) makes the contrast higher, and pressing ② (←) makes the contrast lower.

4 Press (SHIFT).
After the mode setting is complete, the display returns to normal playback mode.

## Adjusting the frequency of the subwoofer(s)

To match the characteristics of the connected subwoofer(s), you can cut out the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency, the subwoofer(s) will output only low frequency signals for a clearer sound image.

1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

2 Press (SHIFT), then press ③ (SET UP) repeatedly until "LPF" appears.

3 Press ⑤ (→) or ② (←) repeatedly to select desired setting.

Each time you press ⑤ (→) or ② (←), the cut-off frequency in the display changes as follows:

LPF off ⟷ LPF 80 Hz ⟷ LPF 120 Hz

4 Press (SHIFT).
When the frequency setting is complete, the display returns to the normal playback mode.



With Optional Equipment

## CD/MD Unit

You can control up to 7 CD and MD units with this unit.
If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.

## Playing a CD or MD

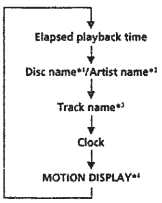
1 Press (SOURCE) repeatedly to select the CD or MD.

2 Press (MODE) until the desired unit appears.
CD/MD playback starts.

When a CD/MD unit is connected, all the tracks play from the beginning.

### Changing the display item

Each time you press (DSPL) during CD, CD TEXT, or MD playback, the item changes as follows:




*1 *If you have not labeled the disc or if there is no disc name prerecorded on the MD, "NO D.Name" appears in the display.*
*2 *If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)*
*3 *If the track name of a CD TEXT disc or MD is not prerecorded, "NO T.Name" appears in the display.*
*4 *All the items above are scrolled in the display one by one in order.*

You can label CD and CD TEXT discs with a personalized name using the disc memo function; refer to "Labeling a CD" (page 29). However, if you use personalized labels, they will always take priority over the original CD TEXT information when such information is displayed.

*Tip*
*If the name of the MD or CD TEXT disc is too long, you can scroll it across the display by pressing (SHIFT), then ② (←).*

### Automatically scrolling a disc name — Auto Scroll

If the disc name/artist name or track name on a CD TEXT disc or MD exceeds 10 characters and the Auto Scroll function is on, information automatically scrolls on the display as follows:
- *The disc name appears when the disc has changed (if the disc name is selected).*
- *The track name appears when the track has changed (if the track name is selected).*

If you press (DSPL) to change the display item, the disc or track name of the MD or CD TEXT disc is scrolled automatically whether you set the function on or off.

1 During playback, press (SHIFT).

2 Press ③ (SET UP) repeatedly until "A.Scrl" appears.

3 Press ⑤ (→) to select "A.Scrl on."

4 Press (SHIFT)

To cancel Auto Scroll, select "A.Scrl off" in step 2 above.

*Note*
*For some CD TEXT discs with extremely many characters, the following cases may happen:*
*— Some of the characters are not displayed*
*— Auto Scroll does not work.*





### Locating a specific track — Automatic Music Sensor (AMS)

During playback, push the SEEK/AMS control up or down once for each track you want to skip.

To locate succeeding tracks

To locate preceding tracks

### Locating a specific point in a track — Manual Search

During playback, push the SEEK/AMS control up or down and hold. Release when you have found the desired point.

To search forward

To search backward

### Locating a disc by disc number — Direct Disc Selection

Press the number button that corresponds with the desired disc number.
The desired disc in the current changer begins playback.

## Scanning the tracks — Intro Scan

You can play the first 10 seconds of all the tracks on the current disc.

1 During playback, press (SHIFT), then press ④ (PLAY MODE) repeatedly until "Intro" appears.

2 Press ⑤ (→) to select "Intro on."
Intro Scan starts.

3 Press (SHIFT).

To go back to normal playback mode, select "Intro off" in step 2 above.

## Playing tracks repeatedly — Repeat Play

You can select:
- Repeat 1 – to repeat a track.
- Repeat 2 – to repeat a disc.

1 During playback, press (SHIFT).

2 Press ⑦ (REP) repeatedly until the desired setting appears.

Repeat 1 → Repeat 2 → Repeat off →

Repeat Play starts.

3 Press (SHIFT).

To return to normal playback mode, select "Repeat off" in step 2 above.

## Playing tracks in random order — Shuffle Play

You can select:
- Shuf 1 – to play the tracks on the current disc in random order.
- Shuf All – to play all the tracks in random order.

1 During playback, press (SHIFT).

2 Press ⑧ (SHUF) repeatedly until the desired setting appears.

Shuf 1 → Shuf All → Shuf off →

Shuffle Play starts.

3 Press (SHIFT).

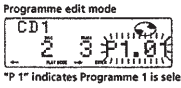
To go back to normal playback mode, select "Shuf off" in step 2 above.

## Creating a programme — Programme Memory (CD/MD unit with the programme memory function)

You can play tracks in any order of your choice by creating and storing programs in the unit's memory. You can make two programmes: Programme 1 and Programme 2. You can select up to 12 tracks for each programme. You can store the programmes in memory.

1 Press (SHIFT), then press ④ (PLAY MODE) for two seconds.

Programme edit mode



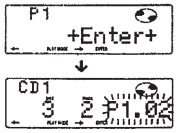

"P 1" indicates Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press ④ (PLAY MODE) to display "P 1" above.

To select Programme 2, press ⑤ (→) repeatedly until "P 2" appears.

2 Select the track you want.
❶ Press (SOURCE) repeatedly to select CD or MD.
❷ Press (MODE) repeatedly to select the unit.
❸ Press (SHIFT), then press the number button to select the disc.
❹ Press (SHIFT).
❺ Push the SEEK/AMS control up or down to select the track.

3 Press ⑥ (ENTER) momentarily.




4 To continue entering tracks, repeat steps 2 and 3.

5 When you finish entering the tracks, press ④ (PLAY MODE) for two seconds.

6 Press (SHIFT).

*Notes*
- *"**Wait**" appears in the display while the unit is reading the data, or if a disc has not been put into the unit.*
- *"**Mem Full**" appears in the display when you try to enter more than 12 tracks into a programme.*

### Playing the stored programme

Changing the disc order in the unit will not affect programme memory play.

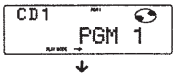
You can select:
- PGM 1 – to play Programme 1.
- PGM 2 – to play Programme 2.
- PGM 1+2 – to play Programmes 1 and 2.

1 Press (SHIFT).

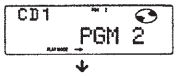
2 Press ④ (PLAY MODE) repeatedly until "PGM" appears.

3 Press ⑤ (→) repeatedly until the desired programme appears.

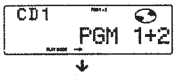
Programme 1 playback



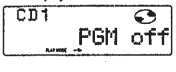

Programme 2 playback




Programmes 1 and 2 playback




Normal playback




Programme Play starts.





continue to next page →

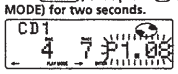
4 Press SHIFT.

To return to normal playback mode, select "PGM off" in step 3 above.

*Notes*
- *If you press a number button during programme memory play, programme memory play is interrupted, and playback of the selected disc starts.*
- *"NO Data" appears in the display if no track is stored in the programme.*
- *If a track stored into the programme memory is not in the disc magazine, the track will be skipped.*
- *When the disc magazine contains no tracks stored into the programme memory, or when the programme information has not been loaded yet, "Not ready" appears.*

### Erasing an entire programme

1 Press SHIFT, then press 4 (PLAY MODE) for two seconds.



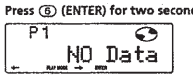

"P 1" indicates Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press 4 (PLAY MODE) to display "P 1" above.

2 Press 2 (←) repeatedly until "DEL" appears.

To erase Programme 2, press 5 (→) repeatedly until "PGM 2" appears.

3 Press 6 (ENTER) for two seconds.



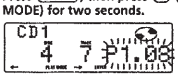

The entire programme is erased.

4 When you finish erasing programmes, press 4 (PLAY MODE) for two seconds.

5 Press SHIFT.

### Adding tracks to a programme

1 Press SHIFT, then press 4 (PLAY MODE) for two seconds.



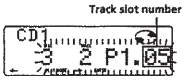

"P 1" indicates Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press 4 (PLAY MODE) to display "P 1" above.

To select Programme 2, press 5 (→) repeatedly until "P 2" appears.

2 Press 2 (←) or 5 (→) to select the track slot number where you want to insert a track.

Track slot number




3 Push the SEEK/AMS control up or down to select the track you want to insert.

4 Press 6 (ENTER) momentarily to enter the track.
The current track in that slot number and the succeeding tracks shift down.
To continue inserting tracks, repeat steps 2 through 4.

*Note*
*Once all 12 slots have been filled, "*Mem Full*" appears in the display, and you cannot insert more tracks.*

5 When you finish inserting tracks, press 4 (PLAY MODE) for two seconds.

6 Press SHIFT.

### Erasing tracks in a programme

1 Press SHIFT, then press 4 (PLAY MODE) for two seconds.

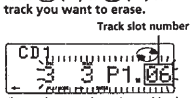
"P 1" indicates Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press 4 (PLAY MODE) to display "P 1" above.

To select Programme 2, press 5 (→) repeatedly until "P 2" appears.

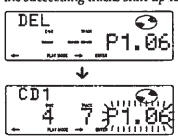
2 Press 2 (←) or 5 (→) to select the track you want to erase.

Track slot number




The track currently registered in slot 6 of Programme 1.

3 Press 6 (ENTER) for two seconds.
When you erase a track from a slot number, the succeeding tracks shift up to fill the gap.




4 To continue erasing tracks, repeat steps 2 and 3.

5 When you finish erasing tracks, press 4 (PLAY MODE) for two seconds.

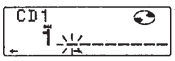
6 Press SHIFT.

## Labeling a CD — Disc Memo

**(CD unit with the custom file function)**

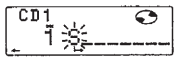
You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate the disc by name (page 31) and select the specific tracks for playback (page 31).

1 Play the CD and press PTY/LIST for two seconds.



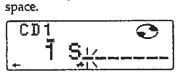

2 Enter the characters.

❶ Rotate the dial clockwise to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → _)




If you rotate the dial counterclockwise, the characters appear in the reverse order.
If you want to put a blank space between characters, select "_" (underbar).

❷ Press 5 (→) after locating the desired character.
The flashing cursor moves to the next space.




If you press 2 (←), the flashing cursor moves to the left.

❸ Repeat steps ❶ and ❷ to enter the entire name.

3 To return to normal CD playback mode, press PTY/LIST for two seconds.



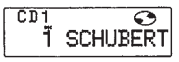
continue to next page →



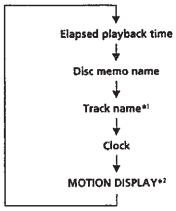
*Tip*
*To erase or correct a name enter "_" (under-bar) for each character.*

### Displaying the disc memo name

Press DSPL during CD or CD TEXT disc playback.




Each time you press DSPL during CD or CD TEXT playback, the item changes as follows:




*1 If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you playback a CD TEXT disc.*
*2 All the items above are scrolled in the display one by one in order.*

### Erasing the disc memo

1 Press SOURCE repeatedly to select CD.

2 Press MODE repeatedly to select the CD unit.

3 Press PTY/LIST for two seconds.

4 Press DSPL for two seconds.

5 Rotate the dial to select the name you want to erase.

6 Press 6 (ENTER) for two seconds.
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.

7 Press PTY/LIST for two seconds.
The unit returns to normal CD playback mode.

*Note*
*When the personalized label is erased, the original CD TEXT information will appear in the display.*

## Locating a disc by name

**— List-up (CD unit with the custom file function or MD unit)**

You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 29).

1 Press PTY/LIST momentarily.
The name assigned to the current disc appears in the display.

When you assign a disc memo label to a CD TEXT disc, it takes priority over the original CD TEXT information.

2 Press PTY/LIST repeatedly until you find the desired disc.

3 Press 6 (ENTER) to play back the disc.

*Notes*
- *After a disc name has been displayed for five seconds, the display goes back to normal playback mode. To turn off the display, press DSPL.*
- *The track names are not displayed during MD or CD TEXT disc playback.*
- *If there are no discs in the magazine, "NO Disc" appears in the display.*
- *If a disc has not been assigned a custom file, "*********" appears in the display.*
- *If the disc information has not been read by the unit, "?" appears in the display. To load a disc, first press the number button, then choose the disc that has not been loaded.*
- *The information appears only in upper case. There are also some letters which cannot be displayed (during MD or CD TEXT disc playback).*

## Selecting specific tracks for playback

**— Bank (CD unit with the custom file function)**

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

1 Start playing the disc and press SHIFT. Then press 4 (PLAY MODE) for two seconds.
Bank edit mode.

*Note*
*If you have not labeled the disc, the bank edit mode does not appear and the programme edit mode appears. To go back to normal playback mode, press 4 (PLAY MODE) for two seconds.*

2 Push the SEEK/AMS control up or down to select the track number you want to skip and press 6 (ENTER).

The indication changes from "Play" to "Skip." To return the indication to "Play," press 6 (ENTER) again.

3 Repeat step 2 to set "Play" or "Skip" mode for all the tracks.

4 Press 4 (PLAY MODE) for two seconds.
The unit returns to normal CD playback mode.

5 Press SHIFT.

*Notes*
- *You can set the "Play" and "Skip" mode for up to 24 tracks.*
- *You cannot set the "Skip" mode for all the tracks.*

### Playing the specific tracks only

You can select:
- Bank on – to play the tracks with the "Play" setting.
- Bank inv (Inverse) – to play the tracks with the "Skip" setting.

**1** During playback, press SHIFT, then press 4 (PLAY MODE) repeatedly until "Bank" appears.

**2** Press 5 (→) to repeatedly until the desired setting appears.

Bank on → Bank inv → Bank off

Playback starts from the track following the current one.

**3** Press SHIFT.

To return to normal play mode, select "Bank off" in step 2 above.





## DSP

The optional XDP-U50D lets you add some effects to the sound field of the currently selected source.

The followings are the operating instructions for the XDP-U50D.
When the XDP-210EQ is connected to the unit, refer to the instructions manual supplied to the XDP-210EQ.

*Note*
*If you connect the optional digital preamplifier XDP-U50D/210EQ, the voice guide function will not work.*

## Selecting a surround menu

You can select a desired surround menu to best fit the audio source. The following menus can simulate different sound fields and enhance the sound so that you feel as if you are in a live concert.

**Surround menu**

| | |
|---|---|
| HALL | Concert hall |
| JAZZ | Jazz club |
| DISCO | Disco with thick walls |
| THEATER | Movie theater |
| PARK | Big open space |
| LIVE | Live concert |
| OPERA | Opera house |
| CHURCH | Church/chapel with a lot of reverberation |
| STADIUM | Open-air concert in a stadium |
| CELLAR | Cellar with a lot of reverberation |
| DEFEAT | Normal sound without any DSP effects |

**1** Press SOURCE to select a source (tuner, tape, CD, or MD).

**2** Press SOUND repeatedly until "SUR" appears.

**3** Rotate the dial to select the desired surround menu.
The surround menu appears in the order shown above.

After three seconds, the display returns to the normal playback mode.

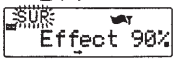
### Adjusting the effect level

**1** Press SOURCE to select a source (tuner, tape, CD, or MD).

**2** Press SOUND for two seconds.

**3** Rotate the dial to select until the desired surround menu appears.

**4** Press 5 (→).




**5** Rotate the dial to adjust the level.
You can adjust the level from 0 to 100%.
Increase the level to enhance the effect.

**6** Press SOUND for two seconds.

## Storing a surround effect onto the CDs

**— Digital Signal Processor (DSP) Custom File (CD unit the with custom file function)**

Once you have registered the desired surround menu onto the discs, you can enjoy the same surround menu every time you play them. (Only when you have labeled a disc by the Custom File function.)

**1** During CD playback, press PTY/LIST for two seconds.

**2** Press PTY/LIST until the surround menu appears.

DSP custom file mode

**3** Rotate the dial to select the desired surround menu.

**4** Press PTY/LIST for two seconds.
After the effect setting is complete, the display returns to the normal playback mode.

### Playing the disc with the stored surround menu

**1** Press SHIFT, then press 4 (PLAY MODE) repeatedly until "D.File" appears.

**2** Press 5 (→) to select "D.File on."
After five seconds, the display returns to the normal playback mode.

**3** Press SHIFT.

To cancel to play the disc with stored surround menu, select "D.File off" in step 2 above.





### Changing the stored surround effect

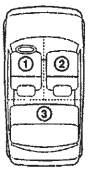
Play the disc whose surround mode you want to change, and follow the steps of "Storing a surround effect onto the CDs."

### Erasing the stored surround effect

Select "DEFEAT" in step 3 of "Storing a surround effect onto the CDs."

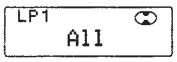
## Selecting the listening position

You can set a delayed time for the sound to reach the listeners from the speakers.
In this way, the unit can simulate a natural sound field so that you feel as if you are in the center of the sound field no matter where you sit in the car.




| Display window | Center of sound field |
|---|---|
| LP1 All | Normal setting (① + ② + ③) |
| LP2 Front | Front part (① + ②) |
| LP3 Front R | Right front (②) |
| LP4 Front L | Left front (①) |
| LP5 Rear | Rear part (③) |

**1** Press SOUND momentarily until "LP1" appears.




**2** Rotate the dial to select the desired listening position.
The listening positions appear in the order shown above.

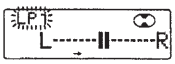
After three seconds, the display returns to the normal playback mode.

### Adjusting the listening position

**1** Press SOUND for two seconds.

**2** Press SOUND repeatedly until the desired listening position appears.

**3** Press 5 (→).




**4** Rotate the dial to adjust the centre of the sound field to the left or right. Then set the center of the sound field.

Centre moves to the L (left).

Centre moves to the R (right).

**5** Press 5 (→).

**6** Rotate the dial to adjust the centre of the sound field to the front or rear.

Centre moves to the R (rear).

Centre moves to the F (front).

**7** Press SOUND for two seconds.
When the effect setting is complete, the normal playback mode appears.





## Adjusting the fader (FAD)

Normally, with the DSP mode on, the volume of the output sound from the rear speakers is lowered automatically to improve the efficiency of the listening position setting. If you want to raise the rear speaker volume, adjust the fader.

**1** Follow steps 1 to 3 of "Selecting a surround menu" (page 32).

**2** Press SOUND repeatedly until "FAD" appears.

**3** Rotate the dial to adjust the fader.

Decreases front speaker volume

Increases front speaker volume

After three seconds, the display returns to the normal playback mode.

## Adjusting the volume of the subwoofer(s)

**1** Press SOURCE to select a source (tuner, tape, CD, or MD).

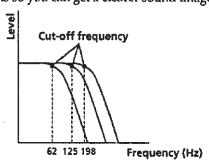
**2** Press SOUND repeatedly until "SUB" appears.

**3** Rotate the dial to adjust the volume.
After three seconds, the display returns to the normal playback mode.

*Tip*
*When you rotate the dial to turn the volume all the way down, "Sub ATT" appears and the cutout frequency of the subwoofer is disabled.*

### Adjusting the frequency of the subwoofer(s)

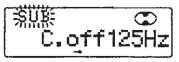
To match the characteristics of the connected subwoofer(s), you can cut out the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency (see the diagram below), the subwoofer(s) will output only low frequency signals so you can get a clearer sound image.




**1** Press SOURCE to select a source (tuner, tape, CD, or MD).

**2** Press SOUND for two seconds.

**3** Press SOUND repeatedly until "SUB" appears.




**4** Rotate the dial to select the desired cut-off frequency.
The cut-off frequency in the display changes as follows:

62 → 78 → 99 → 125* → 157 → 198 Hz
* Factory-set frequency

**5** Press SOUND for two seconds.
After the frequency setting is complete, the display returns to the normal playback mode.

*Tip*
*Each time you press 5 (→), the mode changes between subwoofer volume adjusting mode and the cut-off frequency adjusting mode.*

## Adjusting the volume of the bass and treble

You can adjust the volume of the bass and treble to best fit the acoustic characteristics inside your car.

**1** Press (SOURCE) to select a source (tuner, tape, CD, or MD).

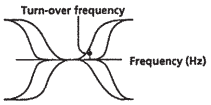
**2** Press (SOUND) repeatedly until "BAS" or "TRE" appears.

**3** Rotate the dial to adjust the volume.
After three seconds, the display returns to the normal playback mode.

### Adjusting the turn-over frequency

You can adjust the bass and treble turn-over frequencies.

EN

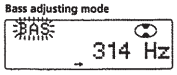



**1** Press (SOURCE) to select a source (tuner, tape, CD, or MD).

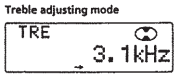
**2** Press (SOUND) for two seconds.

**3** Press (SOUND) repeatedly until "BAS" or "TRE" appears.

Bass adjusting mode




Treble adjusting mode




*Tip*
*Each time you press (5) (→), the mode changes between the turn-over frequency adjusting mode and the bass and treble volume adjusting mode.*

**4** Rotate the dial to select the turn-over frequency.
The turn-over frequencies change as follows:

**Bass:**
**198 Hz → 250 Hz → 314 Hz* → 396 Hz**

**Treble:**
**2.0 kHz → 3.1 kHz* → 4.0 kHz → 5.0 kHz**

* Factory-set frequency

**5** Press (SOUND) for two seconds.
The display returns to the normal playback mode.

## Listening to each programme source in its registered surround menu

**— Last Sound Memory (LSM)**

Each time you return to the same source, you can hear the same surround effect registered for that source, even after changing the programme source or turning the unit off and then on again.

## Changing the line output level

You can change the line output level if you hear distortion or other noise.

**1** Press (SHIFT), then press (3) (SET UP) until "L.out" appears.

**2** Press (5) (→) to select the desired setting (–10 dB or –16 dB).

**3** Press (SHIFT).

# Connections

## Caution

- This unit is designed for negative earth 12 V DC operation only.
- Connect the power connecting cord ⑧ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in combination with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual components' fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

## If your car has no accessory position on the ignition key switch — POWER SELECT switch

The illumination on the front panel is factory set to be turned on even while the unit is not in use. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ⓫ position, then press the reset button. The illumination is reset to stay off while the unit is not in use.

*Notes*

- *The caution alarm for the front panel and TIR indicator is not activated when the POWER SELECT switch is set to the ⓫ position.*
- *Do not use excessive force when changing the POWER SELECT switch.*

## Notes of connection example

*Notes on the control leads*

- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency), the TA (Traffic Announcement) or TIR (Traffic Information Replay) function.*
- *A power aerial without a relay box cannot be used with this unit.*

*Memory hold connection*

*When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.*

*Notes on speaker connection*

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

*Warning*

*If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ⑧ may damage the aerial.*

## Inverter

- Install the inverter far away from the unit using double-side adhesive tape or something similar.
- Be sure not to mount the inverter under a mat or in a place exposed to splashing water of air conditioner. It may cause electric shock or damage to the unit.

*Note*

*If the inverter's cord is pinched, the display indications may not appear.*

# Conexiones

## Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Conecte el cable de conexión de alimentación ⑧ a la unidad y los altavoces antes de conectarlo al conector de alimentación auxiliar.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil de potencia nominal superior a la del fusible de la unidad. Si conecta esta unidad en combinación con otros componentes estéreo, la potencia nominal del circuito del automóvil a los que dichos componentes estén conectados debe ser superior a la suma de la potencia nominal del fusible de los componentes. Si no existen circuitos de automóvil de potencia nominal tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si no hay circuitos de automóvil disponibles para conectar esta unidad, conecte la misma a un circuito de automóvil de potencia nominal superior a la del fusible de la unidad de forma que no se desactiven otros circuitos si el fusible de dicha unidad se funde.

## Si el automóvil no dispone de posición para accesorios en la llave de encendido

### — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en funcionamiento. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil **si éste no dispone de posición para accesorios en la llave de encendido.** Para evitar esto, **ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ⓫ y, después, presione el botón de reposición.** La iluminación estará desactivada cuando la unidad no se encuentre en funcionamiento.

*Notas*

- *La alarma de precaución para el indicador TIR y el panel frontal no se activará si el selector POWER SELECT está ajustado en la posición ⓫.*
- *No emplee excesiva fuerza al cambiar el selector POWER SELECT.*

## Notas de ejemplo de conexiones

*Notas sobre conductores de control*

- *El conductor de control (azul) de la antena motorizada suministra + 12 V CC al activar el sintonizar o la función ATA (activación automática del sintonizador), AF (frecuencias alternativas), TA (anuncios de tráfico) o TIR (repetición de información sobre el tráfico).*
- *Con esta unidad no podrá utilizarse una antena motorizada sin caja de relés.*

*Conexión para protección de la memoria*

*Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición OFF.*

*Notas sobre la conexión de los altavoces*

- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

*Advertencia*

*Si dispone de una antena motorizada sin dispositivo de relé, la conexión de esta unidad con el cable de conexión de alimentación ⑧ suministrado puede dañar la antena.*

## Inversor

- Instale el inversor alejado de la unidad utilizando cinta adhesiva de dos caras o algo similar.
- Cerciórese de no montar el inversor debajo de una alfombrilla ni en un lugar expuesto a salpicaduras de agua de un acondicionador de aire. Esto puede provocar descargas eléctricas o daños a la unidad.

*Nota*

*Si el cable del inversor quedase pillado, es posible que no aparezcan las indicaciones del visualizador.*

# Anslutning

## Säkerhetsföreskrifter

- Denna bilstereo är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri.
- Anslut strömkabeln ⑧ till enheten och högtalarna innan du ansluter den till den yttre strömanslutning.
- **Dra samtliga jordledningar till en och samma jordningspunkt.**
- Anslut den gula kabeln till en ledig bilkrets med en högre ampere än enhetens. Om du seriekopplar enheten till andra stereokomponenter måste den bilkrets de kopplas till ha en högre ampere än summan av de enskilda delarnas amperestyrka. Om det inte finns några bilkretsar med en så hög amperestyrka som enhetens ska du ansluta enheten direkt till batteriet. Om inga bilkretsar finns för anslutning till enheten ska du ansluta enheten till en bilkrets med en högre ampere än enhetens styrka så att inga andra säkringar går om enhetens säkring smälter.

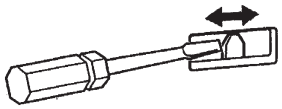
## Montera bilstereon i en bil vars tändlås inte har något strömläge

### — Omkopplaren POWER SELECT

Innan bilstereon levererades från fabriken ställdes belysningen i teckenfönstret in så att den lyser också när bilstereon inte används. Detta kan emellertid orsaka urladdning av batteriet när du använder bilstereon **i en bil, vars tändlås saknar läget ACC (strömläge). Skjut omkopplaren POWER SELECT på bilstereons undersida till läge ⓫, och tryck sedan på återställningsknappen** för att undvika att bilbatteriet laddas ur. Nu lyser inte längre belysningen i teckenfönstret när bilstereon inte används.

*Observera*

- *Varningssignalen till frontpanelens TIR-indikator ljuder inte när omkopplaren POWER SELECT står i läge ⓫.*
- *Ta inte i för mycket när du byter POWER SELECT-omkopplaren.*



## Att observera angående anslutningsexemplen

*Att observera angående olika styrkablarna*

- *Motorantennens styrkabel (blå) leder + 12 volts likström när kanalväljaren slås på eller när radiomottagningsautomatik ATA, mottagning av alternativa frekvenser AF, mottagning av trafikmeddelanden TA eller uppspelning av trafikinformation TIR kopplas in.*
- *En motorantenn utan styrreläd̈osa kan inte anslutas till denna bilstereo.*

*Anslutning för minnesstöd*

*När du anslutit den gula, ingående strömkabeln försörjs minneskretsen med ström hela tiden, även när tändlåset slås ifrån.*

*Att observera angående högtalarnas anslutning*

- *Slå av bilstereon innan du ansluter högtalarna.*
- *Anslut endast högtalare, vars impedans varierar från 4 till 8 ohm och som har tillräcklig effekthanteringskapacitet för att skydda högtalarna mot skador.*
- *Anslut inte något av högtalaruttagen till bilens chassi. Anslut inte heller uttagen på höger högtalare till uttagen på vänster högtalare.*
- *Anslut inte högtalarna parallellt.*
- *Anslut inte aktiva högtalare (med inbyggda slutsteg) till bilstereons högtalaruttag, eftersom de kan skada de aktiva högtalarna. Var noga med att bara ansluta passiva högtalare till dessa uttag.*

*Varning*

*Om du har en motorantenn utan relädosa kan antennen skadas om du ansluter enheten med den medföljande strömkabeln ⑧.*

## Växelriktare

- Installera växelriktaren långt bort från enheten med dubbelhäftad tejp eller liknande.
- Montera inte växelriktaren under en matta eller en plats där det är risk för vattenstänk från luftkonditionering. Det kan leda till att enheten skadas eller utsätts för elektriska stötar.

*Observera*

*Om växelriktarens kabel är hopklämd, visas inga indikationer i teckenfönstret.*

# Ligações

## Advertência

- Este aparelho foi concebido para funcionar somente com corrente contínua de 12 V com negativo à massa.
- Ligue o cabo de alimentação de corrente ⑧ ao aparelho e aos alifalantes antes de o ligar ao conector de corrente auxiliar.
- **Ligue todos os fios de terra num ponto de massa comum.**
- Ligue o cabo amarelo a um circuito eléctrico livre do automóvel, cuja tensão seja superior à dos fusíveis do aparelho. Se ligar este aparelho em série com outros componentes estéreo, a tensão do circuito eléctrico do automóvel onde os ligar tem de ser superior à soma das tensões dos fusíveis de todos os componentes individuais. Se não houver nenhum circuito eléctrico do automóvel com uma tensão tão elevada como a dos fusíveis do aparelho, ligue-o directamente à bateria. Se não estiver disponível nenhum circuito eléctrico do automóvel para ligação deste aparelho, ligue-o a um circuito eléctrico do automóvel com uma potência nominal superior à dos fusíveis do aparelho, de tal modo que, se o aparelho rebentar os fusíveis respectivos, nenhum outro circuito seja cortado.

## Se o seu automóvel não estiver equipado com uma chave de ignição com posição acessórios

### — Interruptor POWER SELECT

A iluminação do painel frontal é regulada na fábric para se manter acesa, mesmo quando o aparelho nã estiver ligado. No entanto, esta regulação pode provocar a descarga da bateria **se o aparelho for utilizado em automóveis sem chave de ignição com posição acessórios.** Para evitar a descarga da bateria, **regule o interruptor POWER SELECT, situado na base do aparelho, para a posição ⓫. Em seguida, carregue no botão de reinicialização.** A iluminação é regulada para ficar apagada enquanto o aparelho estiver desligado.

*Notas*

- *O alarme de aviso do painel frontal e o indicador TIR não são activados se o selector POWER SELECT estiver colocado na posição ⓫.*
- *Não faça demasiada força quando mudar a posição do selector POWER SELECT.*

## Notas sobre o exemplo de ligação

*Notas sobre os fios de controlo*

- *O fio de controlo da antena eléctrica (azul) fornece + V CC quando ligar o sintonizador ou quando activar a funções ATA (Activação automática do sintonizador), AF (frequência alternativa), TA (informações de trânsito) ou TIR (Repetição da informações de trânsito*
- *Uma antena eléctrica sem um relé não pode ser utilizada com este aparelho.*

*Ligação para alimentação contínua da memória*

*Quando, o fio amarelo de entrada de alimentação for ligado, os circuitos de memória ficarão com alimentaçã contínua, mesmo se a chave de ignição estiver desligad*

*Notas sobre a ligação dos altifalantes*

- *Antes de ligar os altifalantes, desligue o aparelho.*
- *Utilize altifalantes com impedância de 4 a 8 ohm, e com capacidade admissível de potência adequada. Ca contrário, os altifalantes poderão sofrer avarias.*
- *Não ligue os terminais do sistema de altifalantes ao chassis do automóvel, e não ligue os terminais do altifalante direito aos terminais do altifalante esquerdo.*
- *Não tente ligar os altifalantes em paralelo.*
- *Não ligue nenhum sistema de altifalantes activos (cor amplificadores incorporados) aos terminais dos altifalantes do aparelho. Caso o faça, poderá avariar sistema de altifalantes activos. Portanto, não se esqueça de ligar altifalantes passivos a estes terminai*

*Atenção*

*Se a antena eléctrica não tiver uma caixa de relé, o fac de ligar este aparelho com a cabo de alimentação ⑧ fornecido, pode provocar danos na antena.*

## Inversor

- Instale o inversor longe do aparelho utilizando fi autocolante com duas faces ou qualquer outro material semelhante.
- Não monte o inversor debaixo de tapetes ou num local exposto a salpicos de água do ar condicionado, pois se o fizer, pode provocar choques eléctricos ou danificar o aparelho.

*Nota*

*Se o cabo do inversor estiver trilhado, as indicações do visor podem não aparecer.*

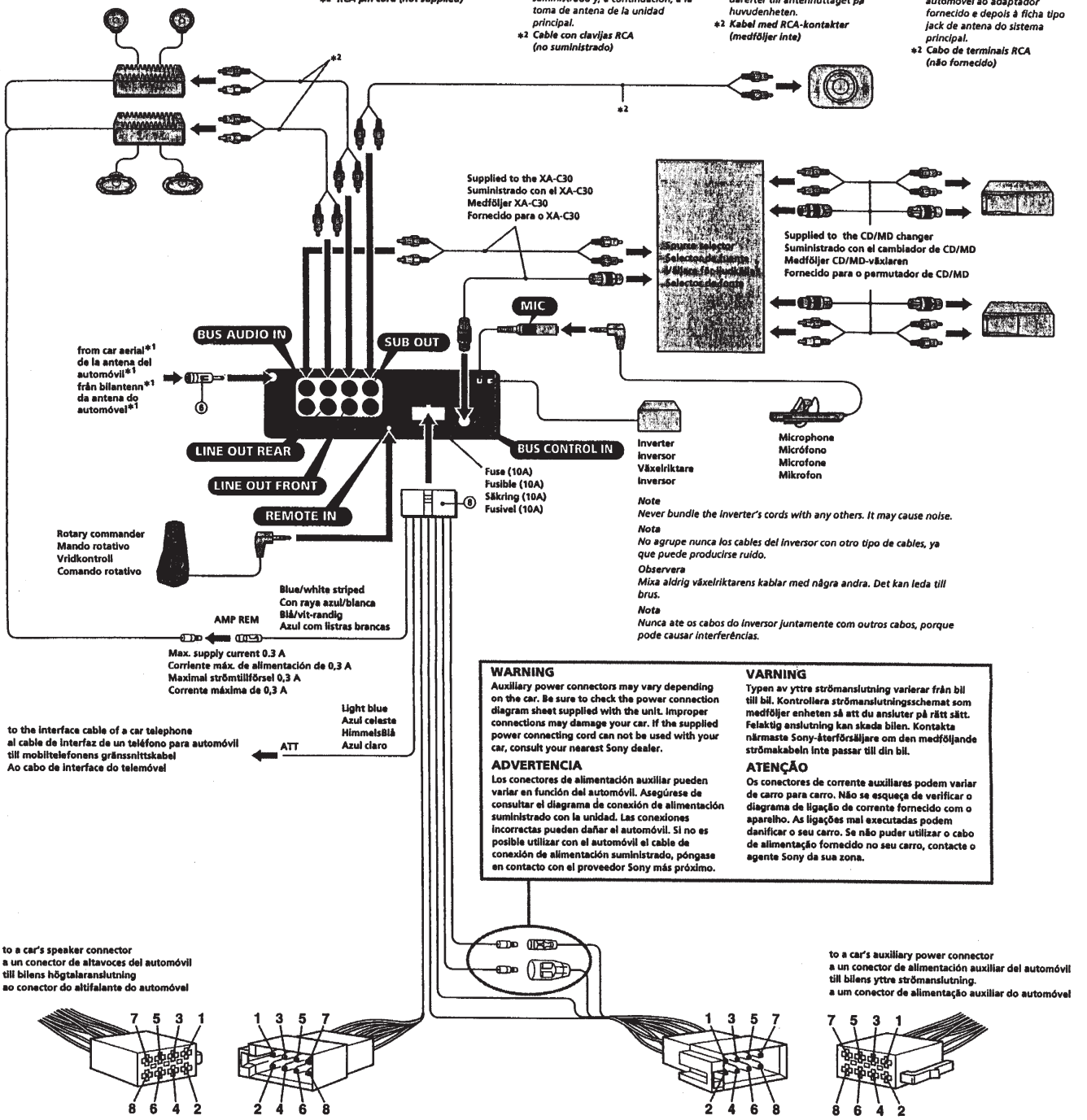
## Connection example
## Ejemplo de conexiones
## Anslutningarna enligt exemplet
## Exemplo de ligações

*1 *Note for the aerial connecting*
*If your car aerial is an ISO (International Organization for Standardization) type, use the supplied adapter ⑧ to connect it. First connect the car aerial to the supplied adapter, then connect it to the aerial jack of the master unit.*
*2 *RCA pin cord (not supplied)*

*1 *Nota sobre la conexión de la antena*
*Si la antena del automóvil es del tipo ISO (International Organization for Standardization), emplee el adaptador suministrado ⑧ para conectarla.*
*En primer lugar, conecte la antena del automóvil al adaptador suministrado y, a continuación, a la toma de antena de la unidad principal.*
*2 *Cable con clavijas RCA (no suministrado)*

*1 *Angående antennanslutning*
*Om motorantennen är av ISO-typ (International Organization for Standardization), använder du medföljande adapter ⑧ för att ansluta den.*
*Anslut först motorantennen till medföljande adapter och därefter till antennuttaget på huvudenheten.*
*2 *Kabel med RCA-kontakter (medföljer inte)*

*1 *Nota referente à ligação da antena*
*Se a antena do automóvel for uma antena de tipo ISO (International Organization for Standardization), utilize o adaptador fornecido ⑧ para fazer a ligação respectiva.*
*Ligue primeiro a antena do automóvel ao adaptador fornecido e depois à ficha tipo jack de antena do sistema principal.*
*2 *Cabo de terminais RCA (não fornecido)*




*Note*
*Never bundle the inverter's cords with any others. It may cause noise.*

*Nota*
*No agrupe nunca los cables del inversor con otro tipo de cables, ya que puede producirse ruido.*

*Observera*
*Mixa aldrig växelriktarens kablar med några andra. Det kan leda till brus.*

*Nota*
*Nunca ate os cabos do inversor juntamente com outros cabos, porque pode causar interferências.*

**WARNING**
Auxiliary power connectors may vary depending on the car. Be sure to check the power connection diagram sheet supplied with the unit. Improper connections may damage your car. If the supplied power connecting cord can not be used with your car, consult your nearest Sony dealer.

**ADVERTENCIA**
Los conectores de alimentación auxiliar pueden variar en función del automóvil. Asegúrese de consultar el diagrama de conexión de alimentación suministrado con la unidad. Las conexiones incorrectas pueden dañar el automóvil. Si no es posible utilizar con el automóvil el cable de conexión de alimentación suministrado, póngase en contacto con el proveedor Sony más próximo.

**VARNING**
Typen av yttre strömanslutning varierar från bil till bil. Kontrollera strömanslutningsschemat som medföljer enheten så att du ansluter på rätt sätt. Felaktig anslutning kan skada bilen. Kontakta närmaste Sony-återförsäljare om den medföljande strömkabeln inte passar till din bil.

**ATENÇÃO**
Os conectores de corrente auxiliares podem variar de carro para carro. Não se esqueça de verificar o diagrama de ligação de corrente fornecido com o aparelho. As ligações mal executadas podem danificar o seu carro. Se não puder utilizar o cabo de alimentação fornecido no seu carro, contacte o agente Sony da sua zona.

to a car's speaker connector
a un conector de altavoces del automóvil
till bilens högtalaranslutning
ao conector do altifalante do automóvel

to a car's auxiliary power connector
a un conector de alimentación auxiliar del automóvil
till bilens yttre strömanslutning.
a um conector de alimentação auxiliar do automóvel




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Purple<br>Púrpura<br>Violeta<br>Morklila | | Speaker, Rear, Right<br>Altavoz, parte posterior, derecho<br>Altifalante, Parte de trás, Direito<br>Högtalare, bakre, höger | | White<br>Blanco<br>Branco<br>Vit | | Speaker, Front, Left<br>Altavoz, parte frontal, izquierdo<br>Altifalante, Parte da frente, Esquerdo<br>Högtalare, främre, vänster |
| | | – | Speaker, Rear, Right<br>Altavoz, parte posterior, derecho<br>Altifalante, Parte de trás, Direito<br>Högtalare, bakre, höger | | | – | Speaker, Front, Left<br>Altavoz, parte frontal, izquierdo<br>Altifalante, Parte da frente, Esquerdo<br>Högtalare, främre, vänster |
| | Grey<br>Gris<br>Cinza<br>Grå | | Speaker, Front, Right<br>Altavoz, parte frontal, derecho<br>Altifalante, Parte da frente, Direito<br>Högtalare, främre, höger | | Green<br>Verde<br>Verde<br>Grön | | Speaker, Rear, Left<br>Altavoz, parte posterior, izquierdo<br>Altifalante, Parte de trás, Esquerdo<br>Högtalare, bakre, vänster |
| | | – | Speaker, Front, Right<br>Altavoz, parte frontal, derecho<br>Altifalante, Parte da frente, Direito<br>Högtalare, främre, höger | | | – | Speaker, Rear, Left<br>Altavoz, parte posterior, izquierdo<br>Altifalante, Parte de trás, Esquerdo<br>Högtalare, bakre, vänster |

*Negative polarity positions 2, 4, 6, and 8 have striped cords.*
*Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con raya.*
*As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos às riscas.*
*De negativa polpositionerna 2, 4, 6 och 8 har randiga kablar.*

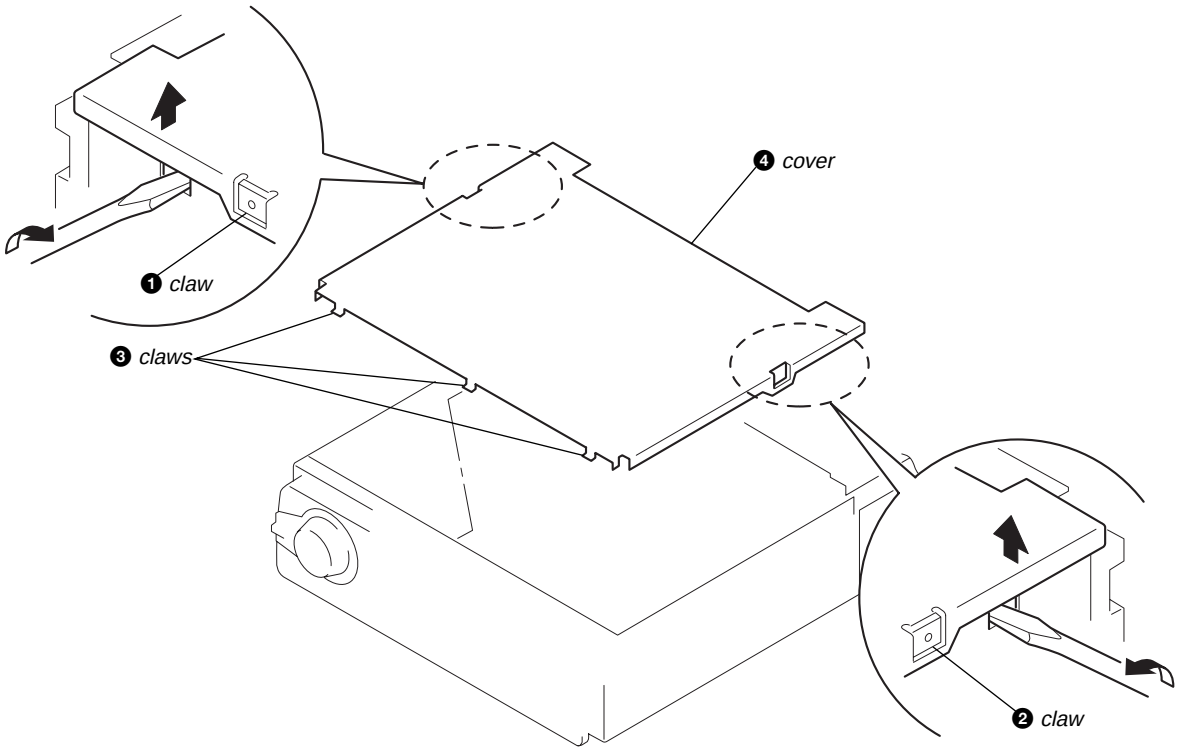
| | | | | | |
|---|---|---|---|---|---|
| 1 | Yellow<br>Amarillo<br>Amarelo<br>Gul | continuous power supply<br>suministro de alimentación continua<br>alimentação de corrente contínua<br>kontinuerlig strömförsörjning | 5 | Red<br>Rojo<br>Vermelho<br>Röd | switched power supply<br>suministro conmutado de alimentación<br>alimentação de corrente comutada<br>switchad strömförsörjning |
| 2 | Blue<br>Azul<br>Azul<br>Blå | power aerial control<br>antena eléctrica<br>antena eléctrica<br>elektrisk serieil | 6 | Black<br>Negro<br>Preto<br>Svart | earth<br>toma de tierra<br>Terra<br>jord |
| 3 | Orange/<br>White<br>Naranja/<br>blanco<br>Cor de<br>laranja/<br>branco<br>Orange/<br>vit | switched illumination power supply<br>fuente de alimentación de iluminación conmutada<br>fonte de alimentação comutada para iluminação<br>Switchad strömförsörjning till belysning | | | |

*Positions 1, 2 and 3 do not have pins.*
*Las posiciones 1, 2 y 3 no disponen de pines.*
*As posições 1, 2 e 3 não têm pinos.*
*Positionerna 1, 2 och 3 saknar stift.*

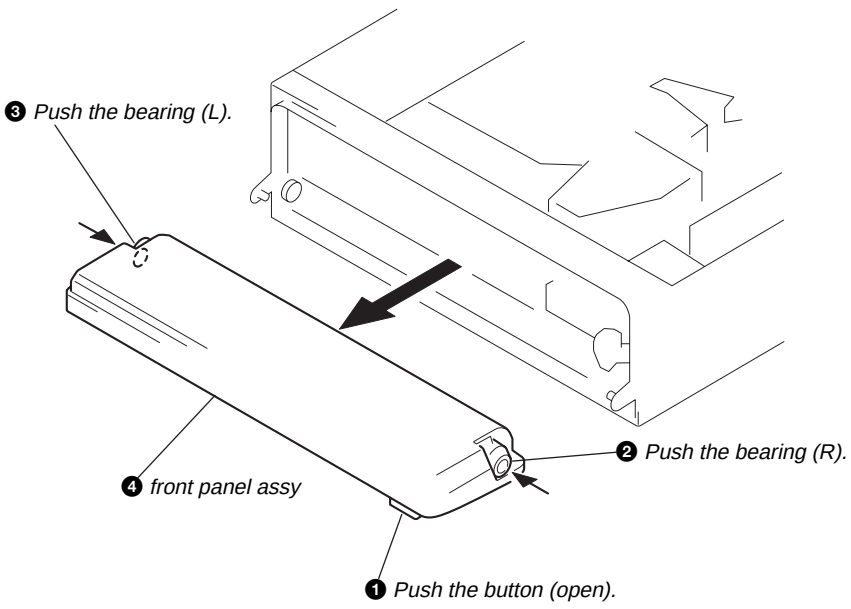
# SECTION 2
# DISASSEMBLY

**Note :** Follow the disassembly procedure in the numerical order given.

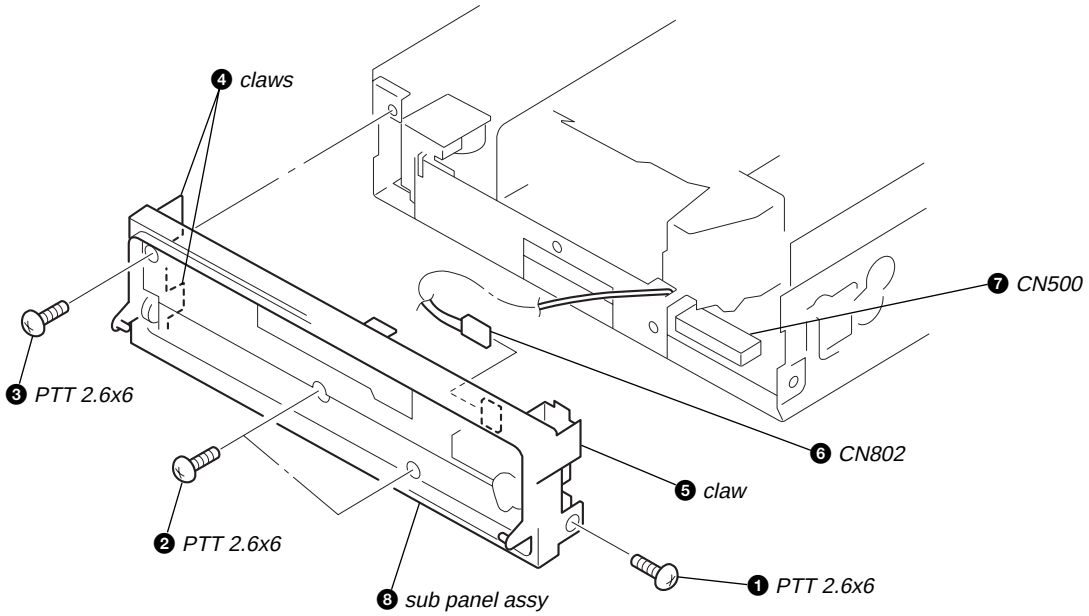
## 2-1. COVER



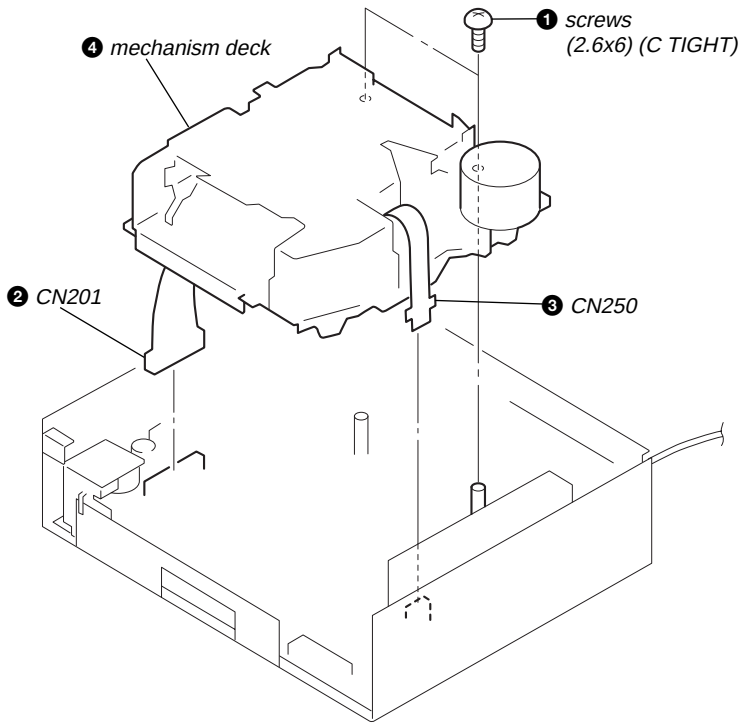

## 2-2. FRONT PANEL ASSY



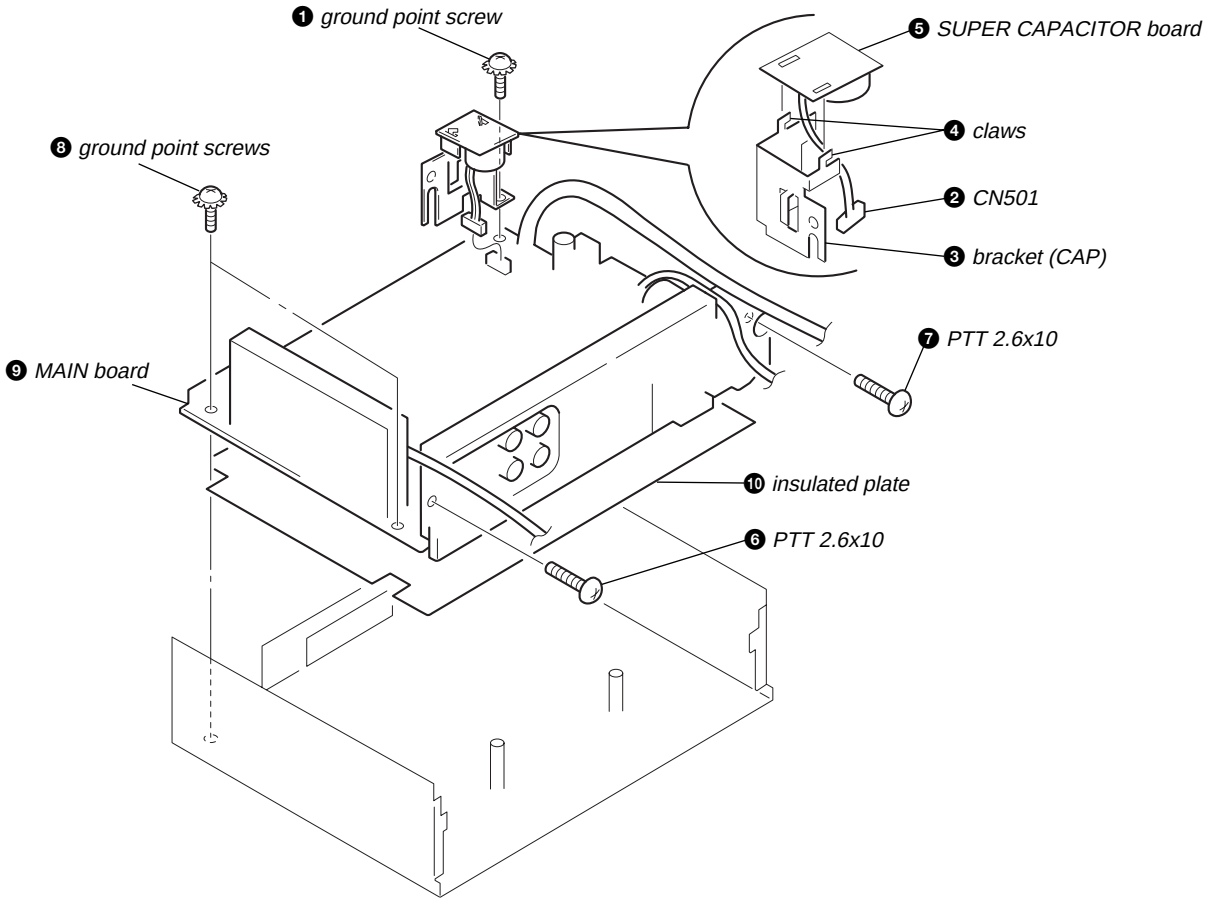
## 2-3. SUB PANEL ASSY



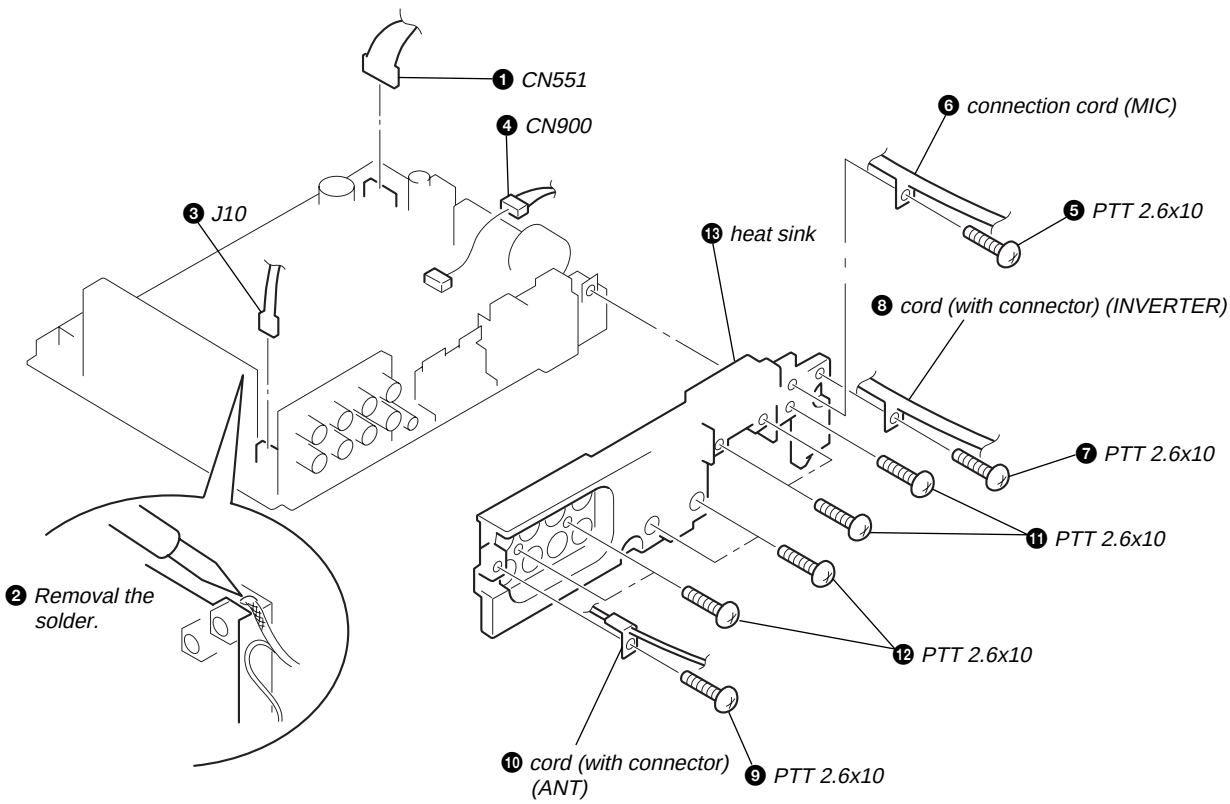

## 2-4. MECHANISM DECK



## 2-5. SUPER CAPACITOR BOARD, MAIN BOARD



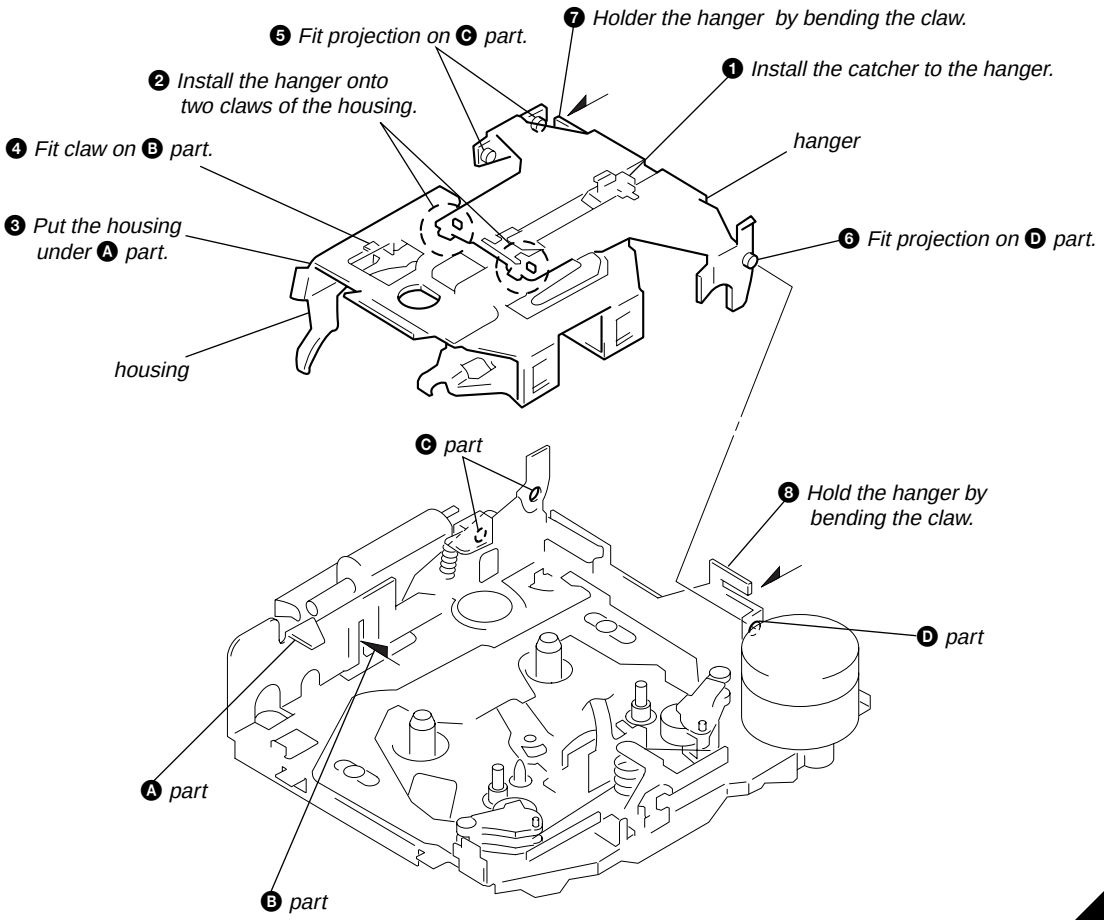

## 2-6. HEAT SINK



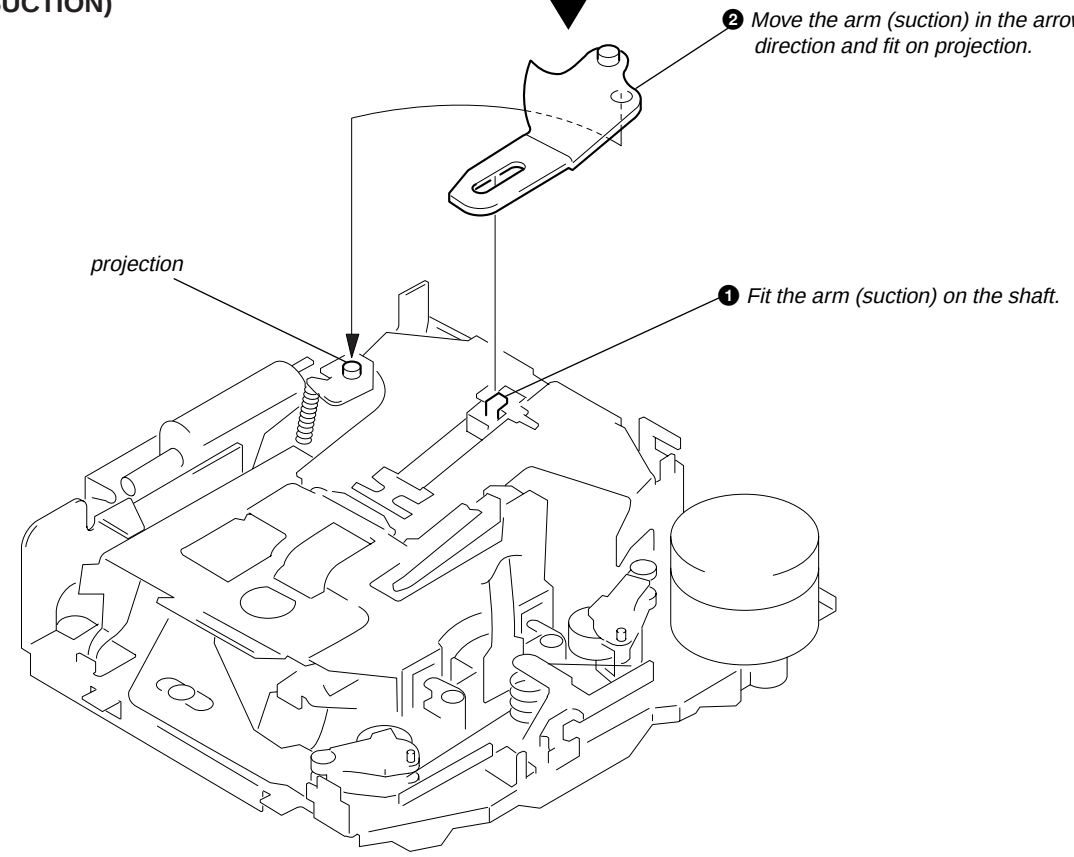
# SECTION 3
# ASSEMBLY OF MECHANISM DECK

**Note :** Follow the assembly procedure in the numerical order given.

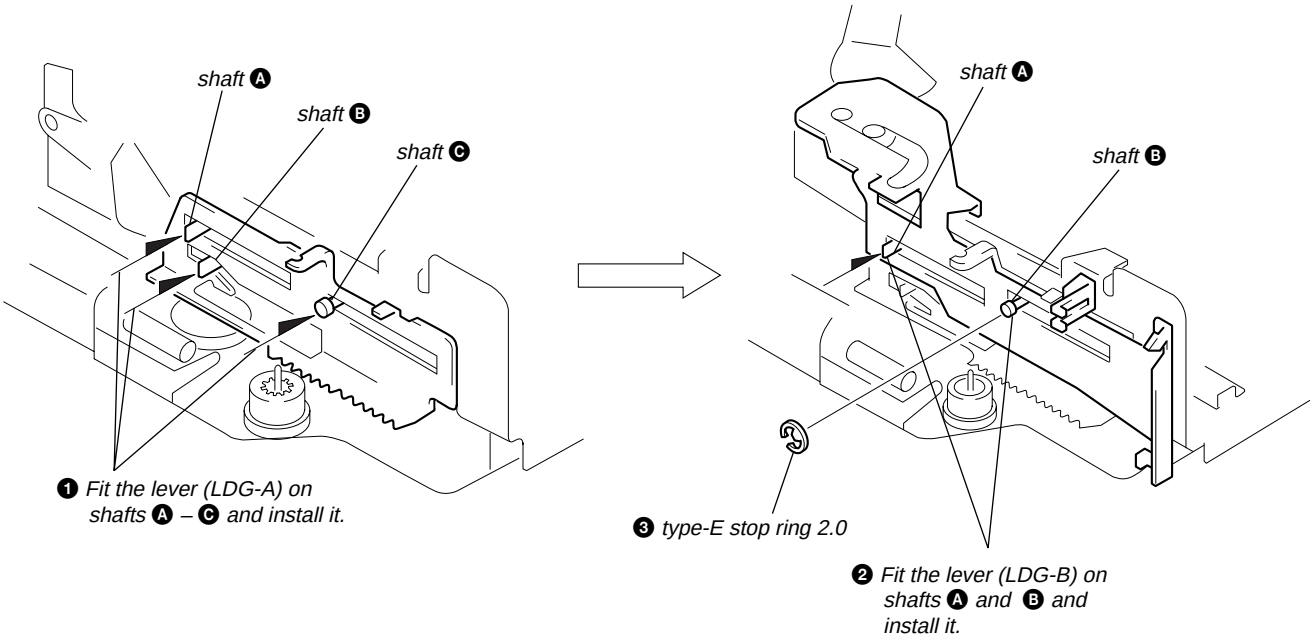
## HOUSING


❺ Fit projection on Ⓒ part.
❼ Holder the hanger by bending the claw.
❶ Install the catcher to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

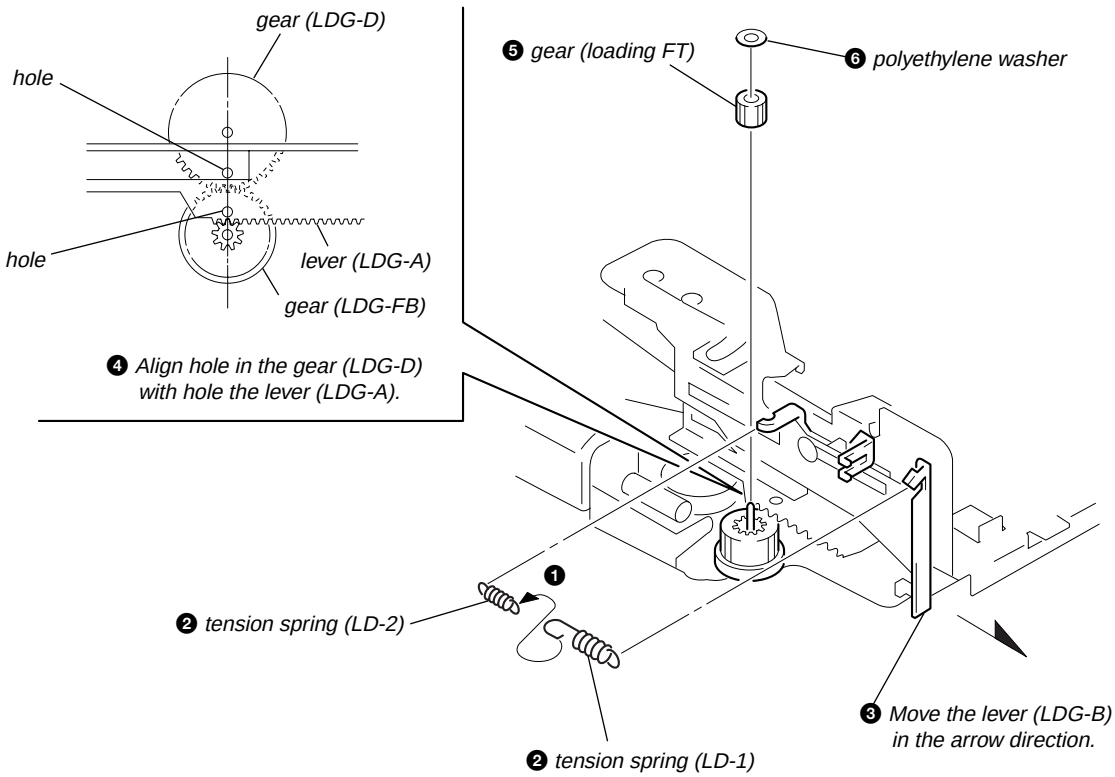
## ARM (SUCTION)



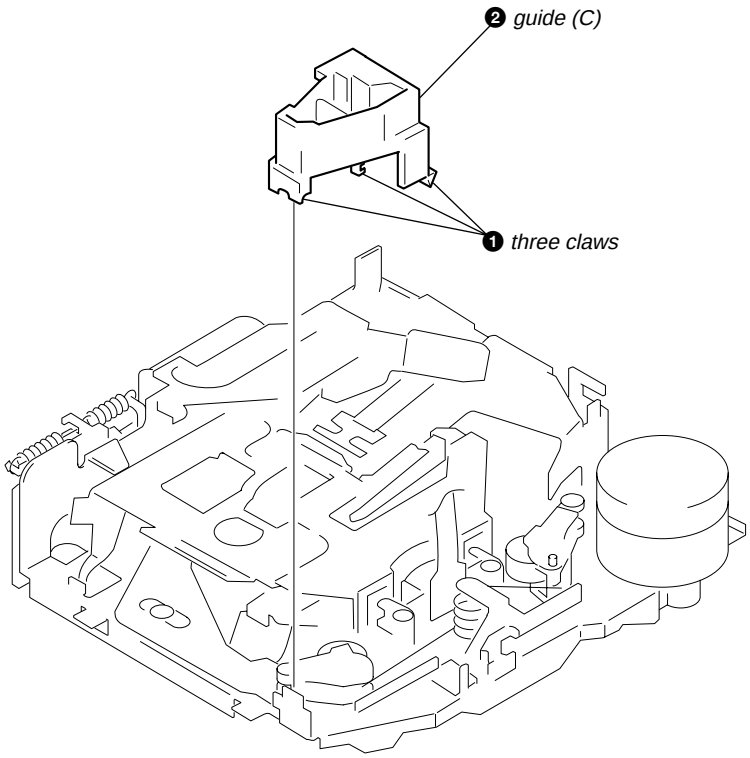
## LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

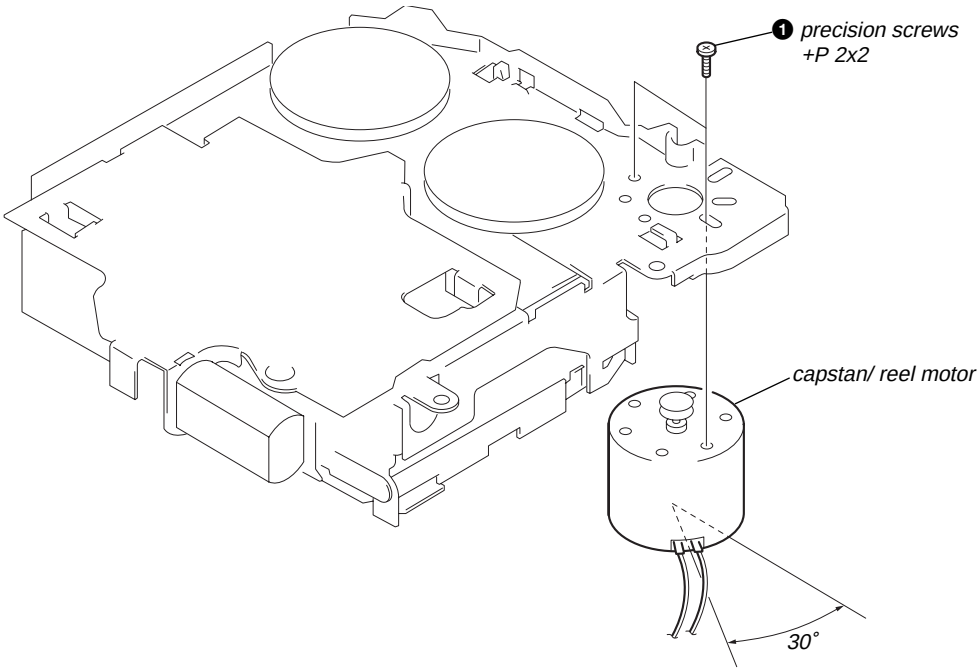
## GEAR (LOADING FT)



**GUIDE (C)**




**MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)**



# SECTION 4
# MECHANICAL ADJUSTMENTS

## PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment :
   PB head Pinch roller
   Idler Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

### Torque Measurement

| Mode | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 35 – 65 g • cm (0.49 – 0.90 oz • inch) |
| FWD Back Tension | | 0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch) |
| REV | CQ-102RC | 35 – 65 g • cm (0.49 – 0.90 oz • inch) |
| REV Back Tension | | 0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch) |
| FF, REW | CQ-201B | 60 – 200 g • cm (0.83 – 2.78 oz • inch) |

### Tape Tension Measurement

| Mode | Tension Meter | Meter Reading |
|---|---|---|
| FWD | CQ-403A | more than 60 g (more than 2.12 oz) |
| REV | CQ-403R | |

# SECTION 5
# ELECTRICAL ADJUSTMENTS

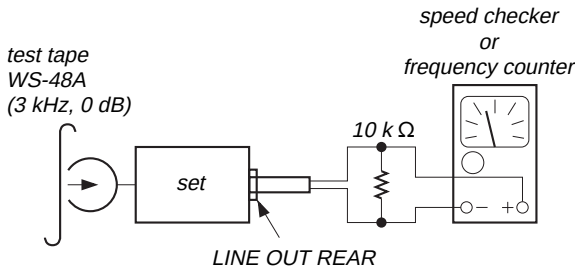
See the adjustment location from on page 24 for the adjustment.

**TAPE SECTION** **0 dB = 0.775 V**

### Tape Speed Adjustment

**Procedure :**

1. Put the set into the FWD PB mode.




**Specification :** Constant speed

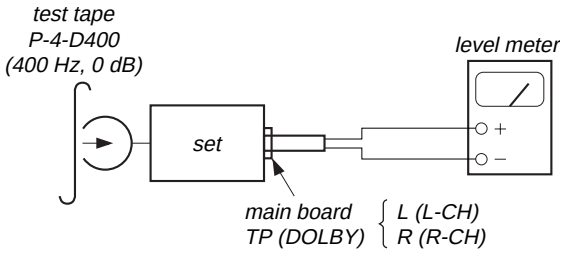
| Speed checker | Frequency counter |
|---|---|
| – 1 to + 2 % | 2,970 to 3,060 Hz |

**Adjustment Location :** See page 24.

### DOLBY Level Adjustment

**Setting :**

SHIFT → 3 (PLAY MODE) button (twice) : NR off




**Procedure :**

1. Put the set into the FWD PB mode.
2. Adjust RV230 (L-CH) and RV240 (R-CH) so that level meter reading is – 6 ± 1 dB (0.35 to 0.44 V).

**Adjustment Location :** See page 24.

**TUNER SECTION** **0 dB = 1 μV**

**Cautions during repair**
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

## TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>
1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test Mode>
1. Push the [OFF] button.

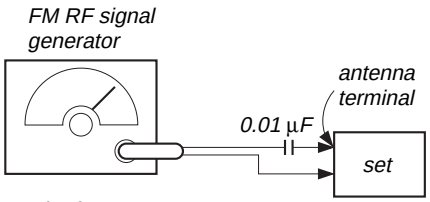
### Note on Adjustment

The adjustments of tuner section, should be performed according to the following sequence.
1. FM Auto Scan/Stop Level Adjustment
2. FM Stereo Separation Adjustment (WIDE)
3. FM Stereo Separation Adjustment (NARROW)
4. FM RDS S-Meter Adjustment
5. MW Auto Scan/Stop Level Adjustment

### FM Auto Scan/Stop Level Adjustment

**Setting :**

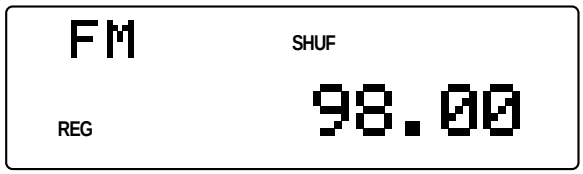
SOURCE button : FM




*Carrier frequency : 98.00 MHz*
*Output level : 22 dB (12.6 μV)*
*Mode : mono*
*Modulation : 1 kHz, 22.5 kHz deviation (30%)*

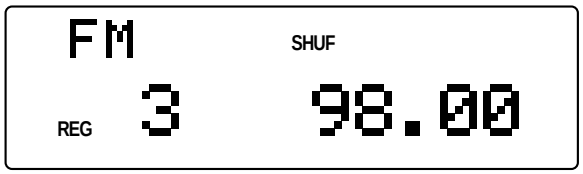
**Procedure :**
1. Set to the test mode.
2. Push the [SOURCE] button and set to FM.

Display



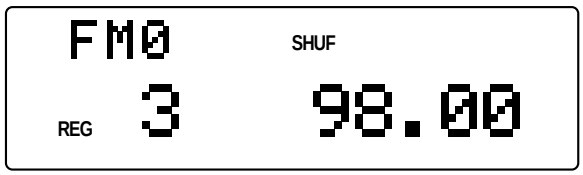

3. Push the preset [3] button.

Display




4. Adjust with the volume RV2 on TUX10 so that the "FM" indication turns to "FM0" indication on the display window. But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display

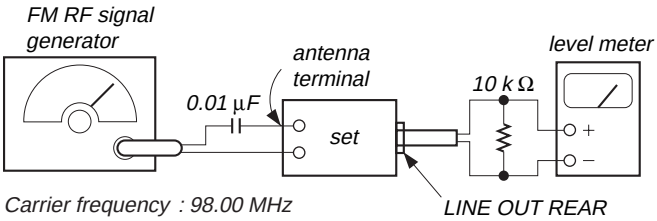



**Adjustment Location :** See page 24.

## FM Stereo Separation Adjustment (WIDE)

**Setting :**

SOURCE button : FM




*Carrier frequency : 98.00 MHz*
*Output level : 70 dB (3.2 mV)*
*Mode : stereo*
*Modulation : main : 1 kHz, 20 kHz deviation (26.5%)*
*sub : 1 kHz, 20 kHz deviation (26.5%)*
*19 kHz pilot : 7.5 kHz deviation (10%)*

**Procedure :**

| FM stereo signal generator output channel | Level meter connection | Level meter reading (dB) |
|---|---|---|
| L-CH | L-CH | Ⓐ |
| R-CH | L-CH | Ⓑ Adjust RV3 on TUX10 for minimum reading. |
| R-CH | R-CH | Ⓒ |
| L-CH | R-CH | Ⓓ Adjust RV3 on TUX10 for minimum reading. |

L-CH stereo separation : Ⓐ – Ⓑ
R-CH stereo separation : Ⓒ – Ⓓ
The separations of both channels should be equal.

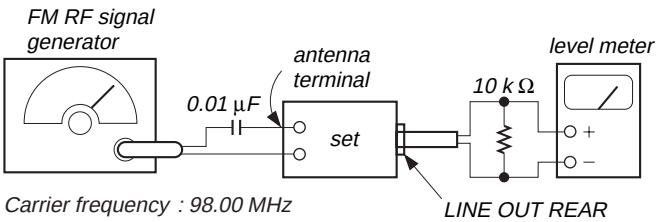
**Specification :** Separation more than 24 dB

**Adjustment Location :** See page 24.

## FM Stereo Separation Adjustment (NARROW)

**Setting :**

SOURCE button : FM




*Carrier frequency : 98.00 MHz*
*Output level : 70 dB (3.2 mV)*
*Mode : stereo*
*Modulation : main : 1 kHz, 20 kHz deviation (26.5%)*
*sub : 1 kHz, 20 kHz deviation (26.5%)*
*19 kHz pilot : 7.5 kHz deviation (10%)*

**Procedure :**

1. Push the [SHIFT] button.
2. Push the [4] button three times.
3. Push the [5] button twice and set to NARROW mode.

| FM stereo signal generator output channel | Level meter connection | Level meter reading (dB) |
|---|---|---|
| L-CH | L-CH | Ⓐ |
| R-CH | L-CH | Ⓑ Adjust RV4 on TUX10 for minimum reading. |
| R-CH | R-CH | Ⓒ |
| L-CH | R-CH | Ⓓ Adjust RV4 on TUX10 for minimum reading. |

L-CH stereo separation : Ⓐ – Ⓑ
R-CH stereo separation : Ⓒ – Ⓓ
The separations of both channels should be equal.

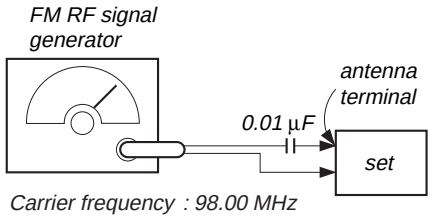
**Specification :** Separation more than 18 dB

**Adjustment Location :** See page 24.

### FM RDS S-Meter Adjustment

**Setting :**

SOURCE button : FM

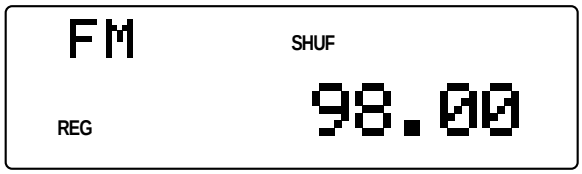



*Carrier frequency : 98.00 MHz*
*Output level : 35 dB (56.2 µV)*
*Mode : mono*
*Modulation : no modulation*

**Procedure :**

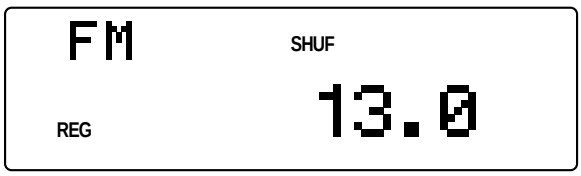
1. Set to the test mode. (See page 21.)
2. Push the SOURCE button and set to FM.

Display




3. Push the preset 10 button.
4. Adjust RV10 so that the display indication is “13.0”.

Display



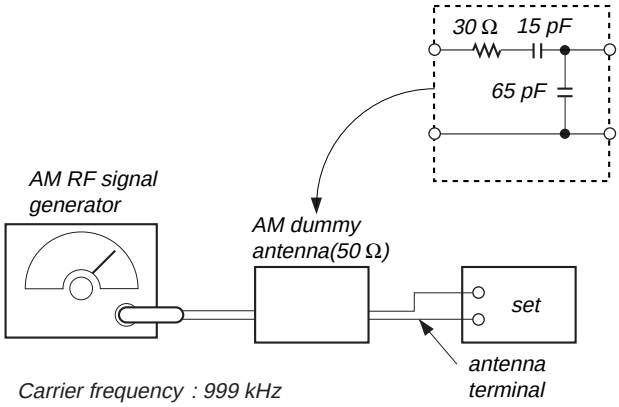

**Specification :** Display indication : 12.8 to 13.2.

**Adjustment Location :** See page 24.

### MW Auto Scan/Stop Level Adjustment

**Setting :**

SOURCE → MODE button : MW

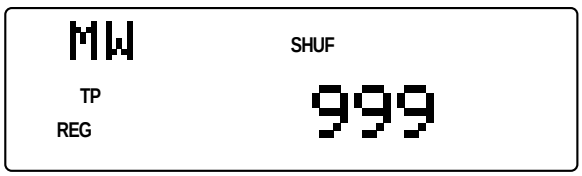



*Carrier frequency : 999 kHz*
*30% amplitude modulation by 1 kHz signal*
*output level : 33 dB (44.7 µV)*

**Procedure :**

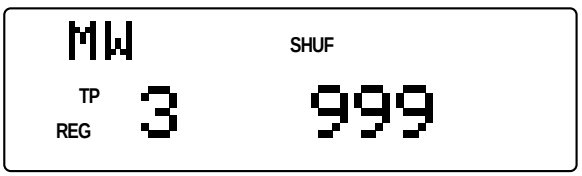
1. Set to the test mode. (See page 21.)
2. Push the SOURCE button.
3. Push the MODE button and set to MW.

Display



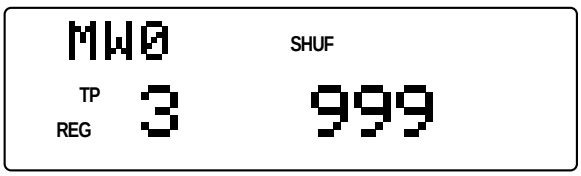

4. Push the preset 3 button.

Display



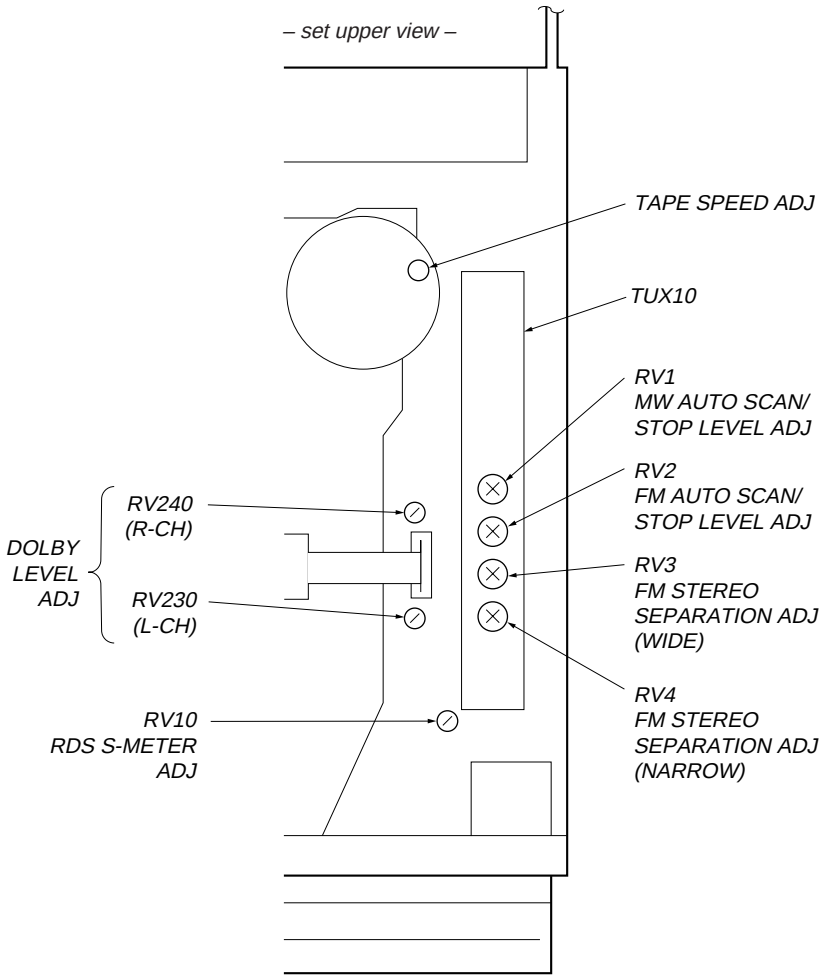

5. Adjust with the volume RV1 on TUX10 so that the “MW” indication turns to “MW0” indication on the display window. But, in case of already indicated “MW0”, turn the RV1 so that put out light “0” indication and adjustment.

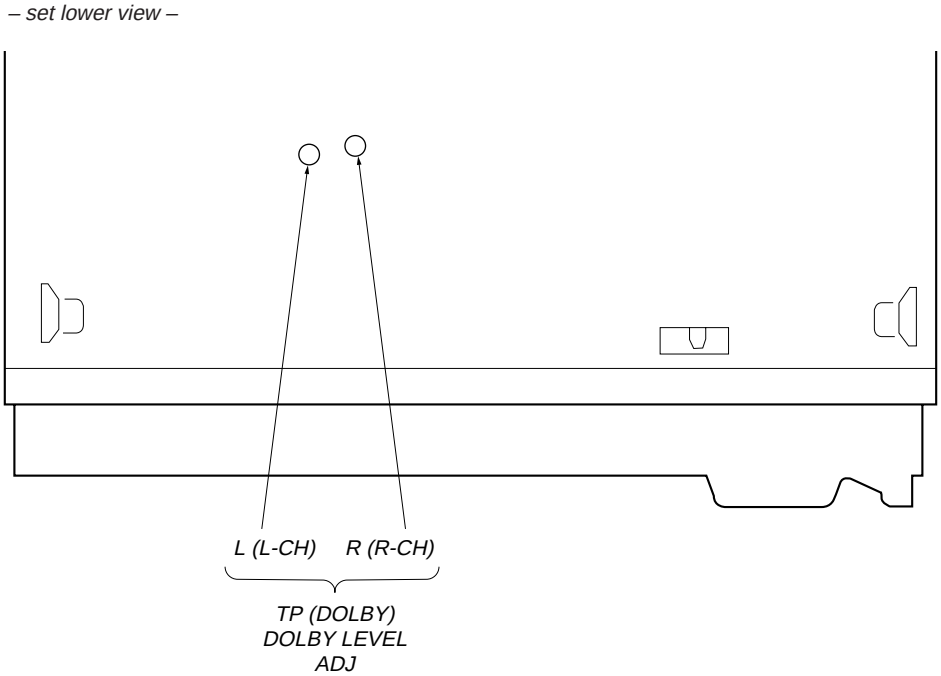
Display




**Adjustment Location :** See page 24.

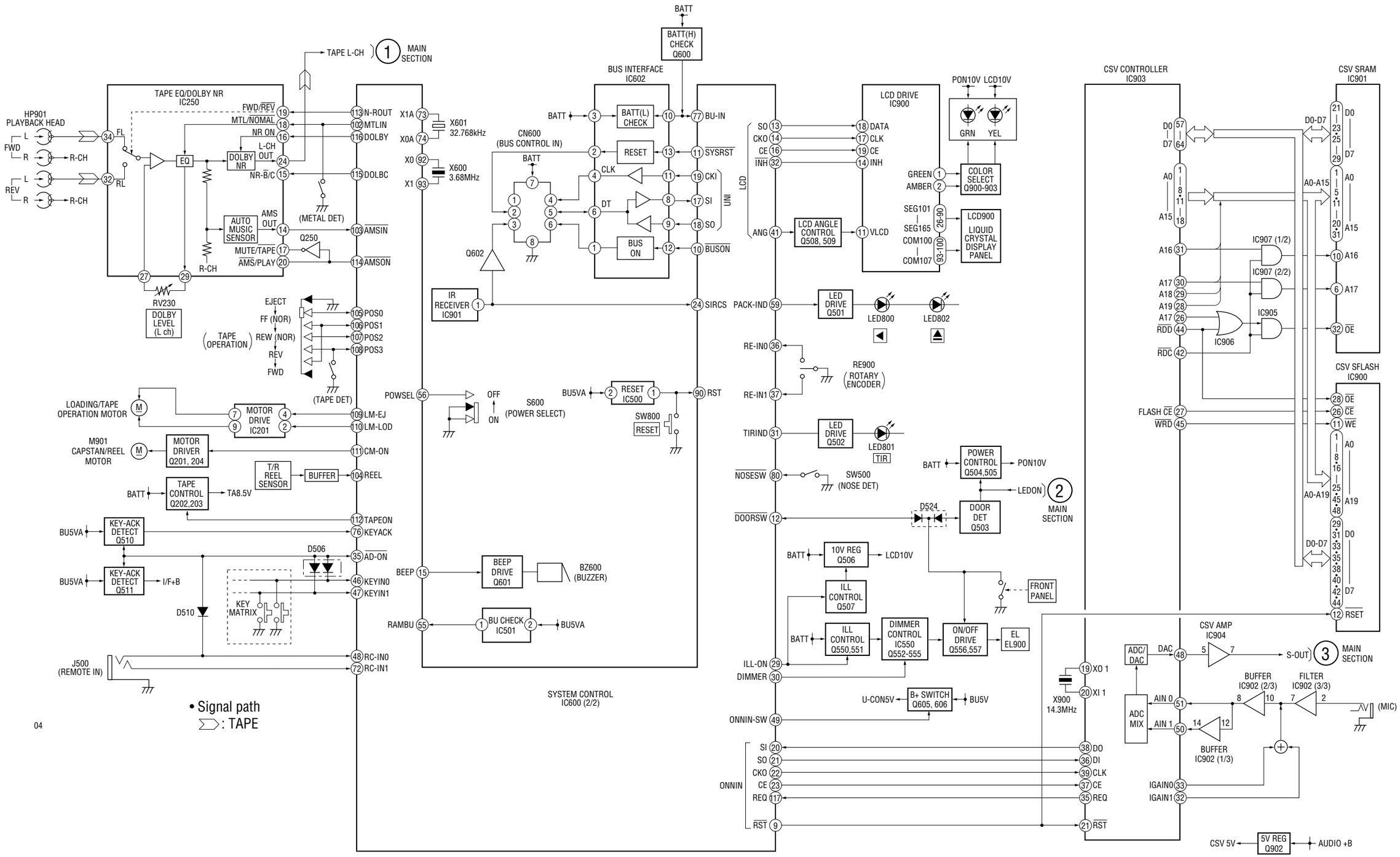
**Adjustment Location :** tuner unit (TUX10)



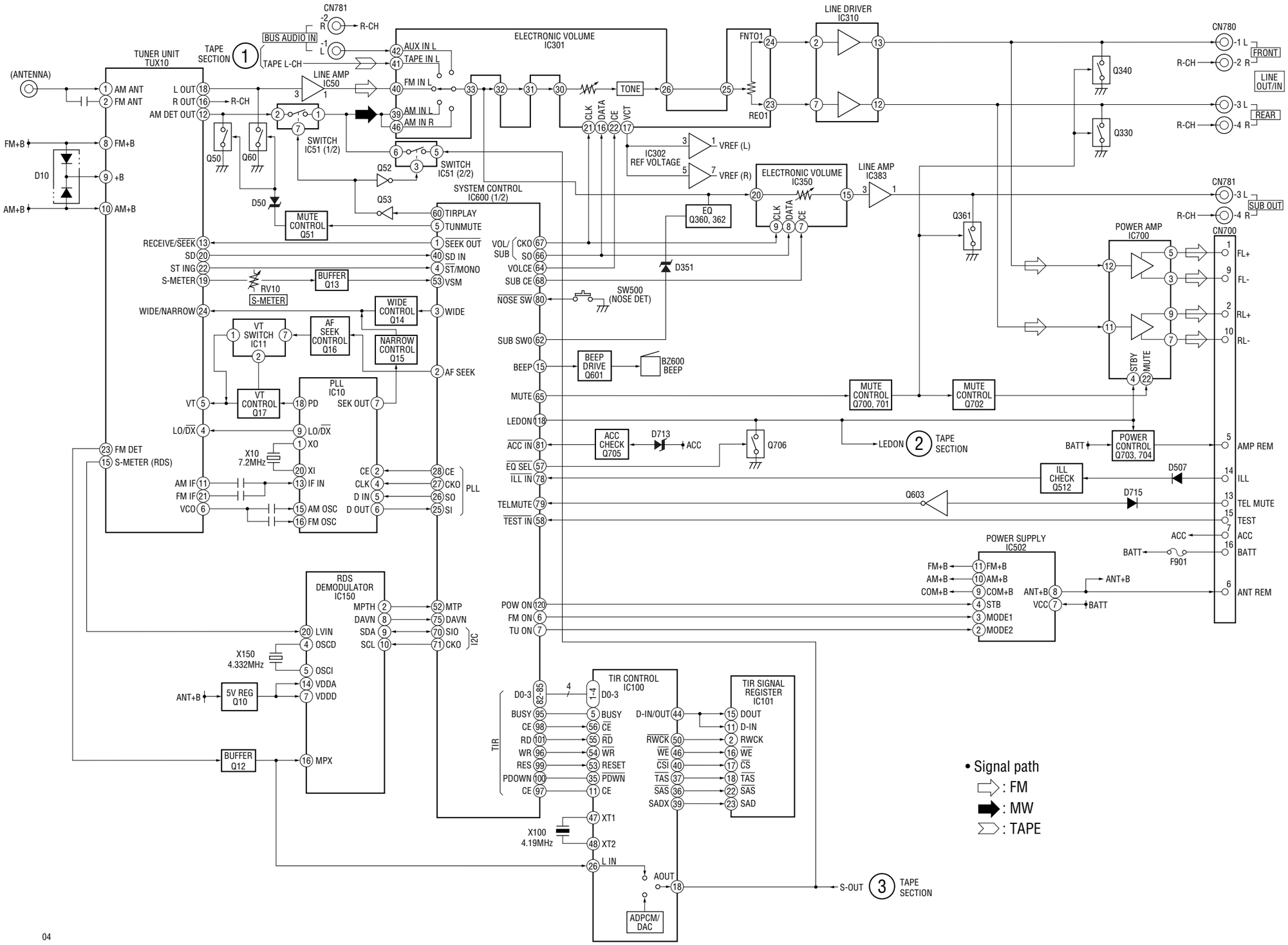



# SECTION 6
# DIAGRAMS

## 6-1. BLOCK DIAGRAM — TAPE SECTION —



## 6-2. BLOCK DIAGRAM — MAIN SECTION —



## 6-3. IC PIN DESCRIPTION

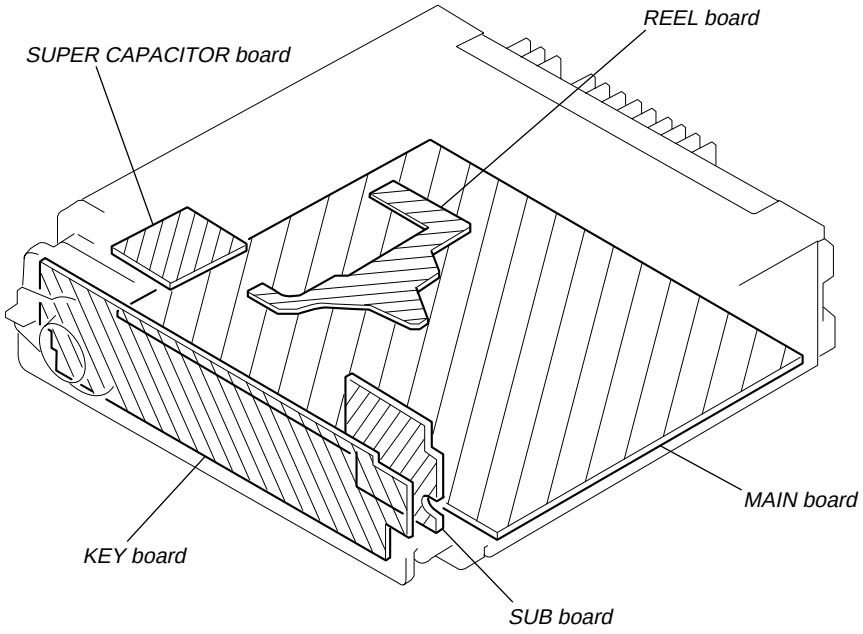
### • IC600 MB90574PFV-G-134-BND (SYSTEM CONTROL)

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | $\overline{\text{SEKOUT}}$ | O | SEEK OUT output |
| 2 | AF-SEEK | O | AF SEEK output |
| 3 | WIDE | O | WIDE/NARROW select output |
| 4 | $\overline{\text{ST}}$-MONO | I/O | Use a thing both as ST-IND display input and force MONO output. |
| 5 | TUNMUTE | O | Tuner mute output |
| 6 | FM-ON | O | FM ON output |
| 7 | TU-ON | O | Tuner ON output |
| 8 | VCC | — | Power supply pin (+5 V) |
| 9 | $\overline{\text{ONNIN-RST}}$ | O | Audio composition IC reset output |
| 10 | $\overline{\text{BUSON}}$ | O | Bus ON control output |
| 11 | $\overline{\text{SYSRST}}$ | O | System reset output |
| 12 | $\overline{\text{DOORSW}}$ | I | Door OPEN/CLOSE detection input |
| 13 | LCDSO | O | LCD serial data output |
| 14 | LCDCKO | O | LCD serial clock output |
| 15 | BEEP | O | BEEP output |
| 16 | LCDCE | O | LCD chip enable output |
| 17 | UNISI | I | Serial data input |
| 18 | UNISO | O | Serial data output |
| 19 | UNICKI | I/O | Serial clock input/output |
| 20 | ONNIN-SI | I | Audio composition serial data input |
| 21 | ONNIN-SO | O | Audio composition serial data output |
| 22 | ONNIN-CKO | O | Audio composition serial clock output |
| 23 | ONNIN-CE | O | Audio composition chip enable output |
| 24 | SIRCS | I | Remote commander input |
| 25 | PLLSI | I | PLL data input |
| 26 | PLLSO | O | PLL data output |
| 27 | PLLCKO | O | PLL clock output |
| 28 | PLLCE | O | PLL chip enable output |
| 29 | ILL-ON | O | Illumination power control output |
| 30 | DIMMER | O | Dimmer control output |
| 31 | TIRIND | O | TIR indicator control output |
| 32 | $\overline{\text{LCDINH}}$ | O | LCD blank display control output |
| 33 | VSS | — | GND |
| 34 | C | — | Power stabilization capacitor pin |
| 35 | $\overline{\text{AD-ON}}$ | O | Power control output of A/D conversion. |
| 36, 37 | RE-IN0, 1 | I | Rotary encoder input 0, 1 |
| 38 | DVCC | — | D/A converter VREF input |
| 39 | DVSS | — | GND of D/A converter. |
| 40 | SD-IN | I | Signal director input |
| 41 | LCDANG | O | LCD view angle alignment output |
| 42 | AVCC | — | Analog power supply pin (+5 V) |
| 43 | AVRH | — | A/D converter VREF+ input |
| 44 | AVRL | — | A/D converter VREF– input |
| 45 | AVSS | — | Analog GND |
| 46, 47 | KEYIN0, 1 | I | Key input 0, 1 |
| 48 | RC-IN0 | I | Rotary commander input 0 |
| 49 | ONNIN-SW-ON | — | Audio composition IC power supply pin (+5V) |
| 50 | DSTSEL1 | I | Function select input |
| 51 | DSTSEL2 | I | Tuner destination setting input |
| 52 | MTP | I | Tuner multi-pass input (Not used in this set.) |
| 53 | VSM | I | S-Meter voltage detection input |

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 54 | VCC | — | Power supply pin (+5 V) |
| 55 | RAMBU | I | RAM reset detection input |
| 56 | POWSEL | I | Power select initial setting input |
| 57 | $\overline{\text{EQ-SEL}}$ | O | Equalizer connection : “H” |
| 58 | $\overline{\text{TESTIN}}$ | I | Test mode setting detection input |
| 59 | PACK-IND | O | Door indicator output |
| 60 | TIRPLAY | O | TIR playback audio line select output |
| 61, 62 | SUB-SW1, 0 | O | Simple SUB WOOFER control output 1, 0 |
| 63 | VSS | — | GND |
| 64 | VOLCE | O | Electric volume serial chip enable output |
| 65 | MUTE | O | System mute control output |
| 66 | VOLSO/SUBSO | O | Main/Sub volume serial data output |
| 67 | VOLCKO/SUBCKO | O | Main/Sub volume serial clock output |
| 68 | SUBCE | O | Sub volume serial chip enable output |
| 69 | $\overline{\text{FLASH-W}}$ | I | Flash write in mode detection input |
| 70 | 12CSIO | I/O | RDS serial data input/output |
| 71 | 12CCKO | O | RDS serial clock output |
| 72 | RC-IN1 | I | Rotary commander input |
| 73 | X1A | — | Low speed oscillation input (32.768 kHz) |
| 74 | X0A | — | Low speed oscillation input (32.768 kHz) |
| 75 | DAVN | I | RDS IC data taking in detection input (Not used in this set.) |
| 76 | KEYACK | I | Key input acknowledge |
| 77 | BU-IN | I | Back-up power detection input |
| 78 | $\overline{\text{ILLIN}}$ | I | Illumination line detection input |
| 79 | TELMUTE | I | Telephone mute detection input |
| 80 | $\overline{\text{NOSESW}}$ | I | Front panel detachable detection input |
| 81 | $\overline{\text{ACCIN}}$ | I | Accessory power detection input |
| 82 – 85 | TIR-D0, D1, D2, D3 | I/O | TIR IC command input/output D0, D1, D2, D3 |
| 86 | HSTX | — | Connect to power supply pin. |
| 87 | MD2 | I | Connect to GND. |
| 88, 89 | MD0, 1 | I | Connect to power supply pin. |
| 90 | RST | I | Microcomputer reset input |
| 91 | VSS | — | GND |
| 92 | X0 | — | High speed oscillation input (3.68 MHz) |
| 93 | X1 | — | High speed oscillation input (3.68 MHz) |
| 94 | VCC | — | Power supply pin (+5 V) |
| 95 | TIR-BUSY | I | TIR IC BUSY output monitor pin |
| 96 | $\overline{\text{TIR-WR}}$ | O | TIR IC data write pulse output |
| 97 | TIR-CE | O | TIR IC CE output |
| 98 | $\overline{\text{TIR-CE}}$ | O | TIR IC CE output |
| 99 | TIR-RES | O | TIR IC reset/power down |
| 100 | $\overline{\text{TIR-PDOWN}}$ | O | TIR IC power down |
| 101 | $\overline{\text{TIR-RD}}$ | O | TIR IC data read pulse output |
| 102 | MTLIN | I | Auto METAL detection input |
| 103 | $\overline{\text{AMSIN}}$ | I | Tape AMS music detection input |
| 104 | REEL | I | Tape reel table rotation detection input |
| 105 | POS0 | I | Tape position detection input 0 |
| 106 | POS1 | I | Tape position detection input 1 |
| 107 | POS2 | I | Tape position detection input 2 |
| 108 | POS3 | I | Tape position detection input 3 |
| 109 | LM-EJ | O | Tape loading motor control output (Eject direction) |
| 110 | LM-LOD | O | Tape loading motor control output (Loading direction) |
| 111 | CM-ON | O | Tape capstan motor control output |

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 112 | TAPEON | O | Tape power control output |
| 113 | N-ROUT | O | Tape forward/reverse detection output |
| 114 | AMSON | O | Tape AMS control output |
| 115 | DOLBC | O | Tape DOLBY B/C select control output |
| 116 | DOLBY | O | Tape DOLBY control output |
| 117 | ONNIN-REQ | I | Space condition indicate signal input for voice synthesizer IC. |
| 118 | LEDON | O | Front panel LED control output |
| 119 | VSS | — | GND |
| 120 | POWON | O | System power control output |

## 6-4. CIRCUIT BOARDS LOCATION




**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**
**(In addition to this, the necessary note is printed in each block.)**

**• For printed wiring boards.**
- ⚬——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.
- Abbreviation
  G : German model.

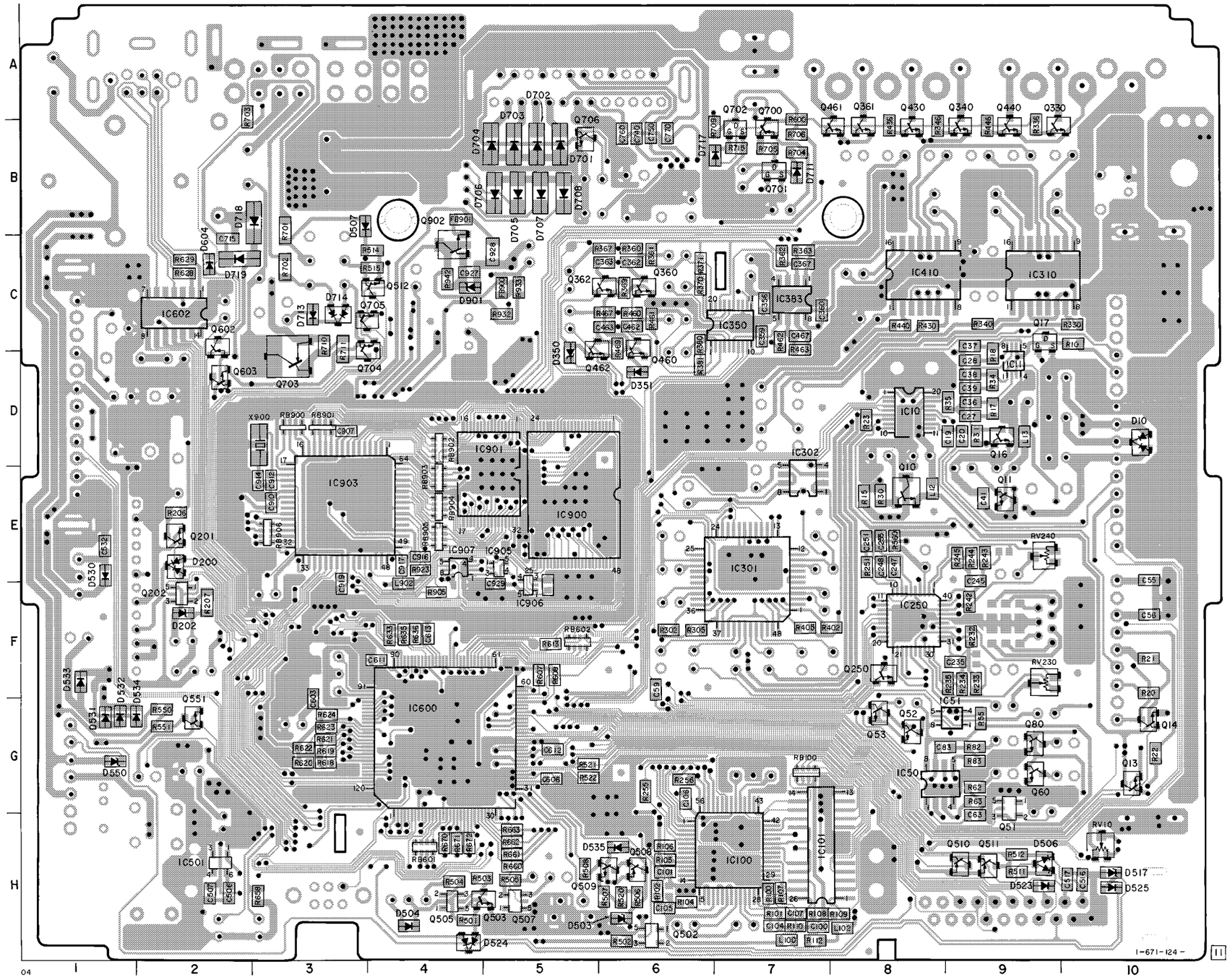
**• For schematic diagrams.**
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.

| Caution: | |
|---|---|
| Pattern face side: (Side B) | Parts on the pattern face side seen from the pattern face are indicated. |
| Parts face side: (Side A) | Parts on the parts face side seen from the parts face are indicated. |

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW
  < > : PB
  ∗ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ➡ : MW
  Σ : PB
- Abbreviation
  G : German model.

## 6-5. PRINTED WIRING BOARD — MAIN SECTION (SIDE A) —

【MAIN BOARD】(SIDE A)

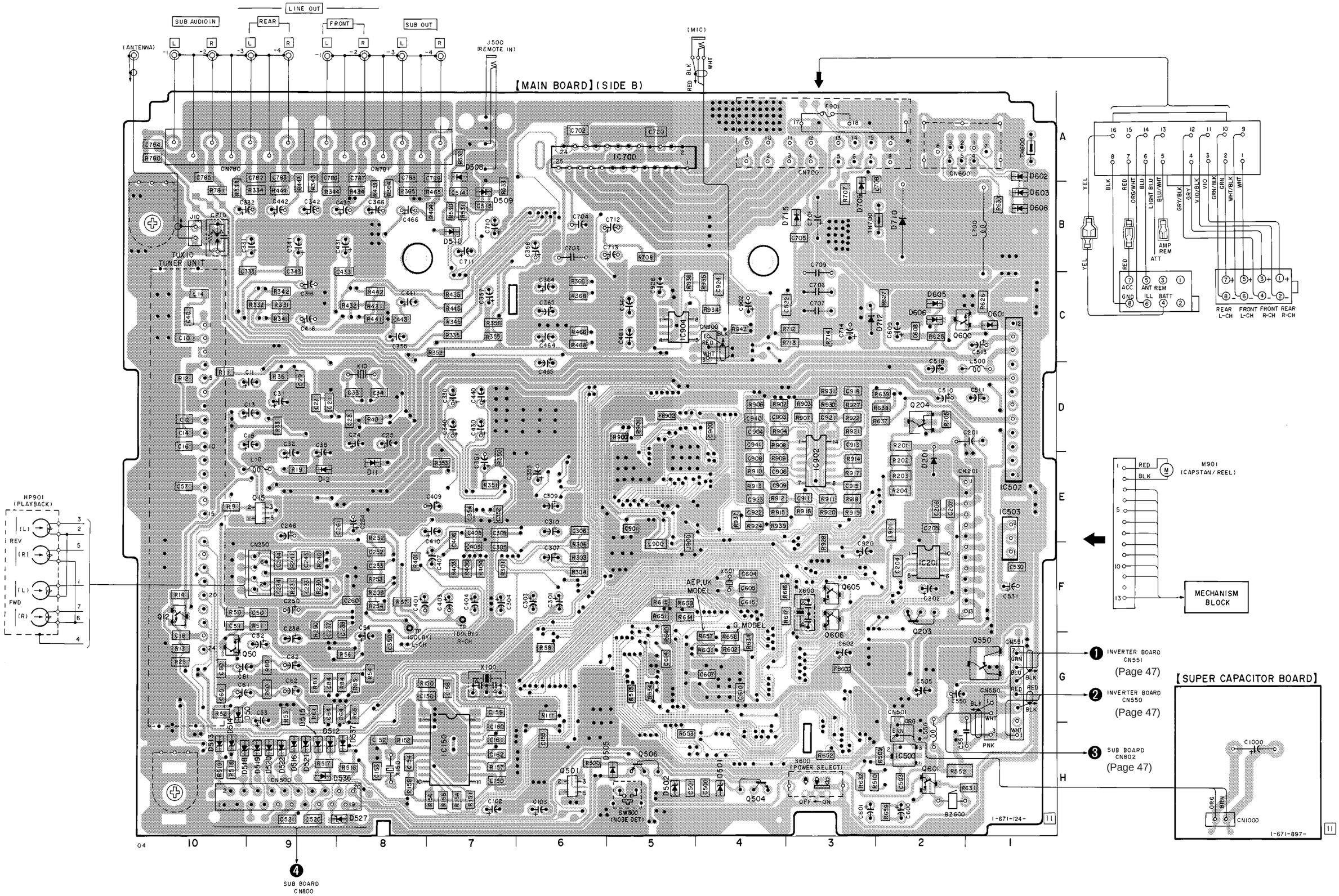


• **Semiconductor Location**

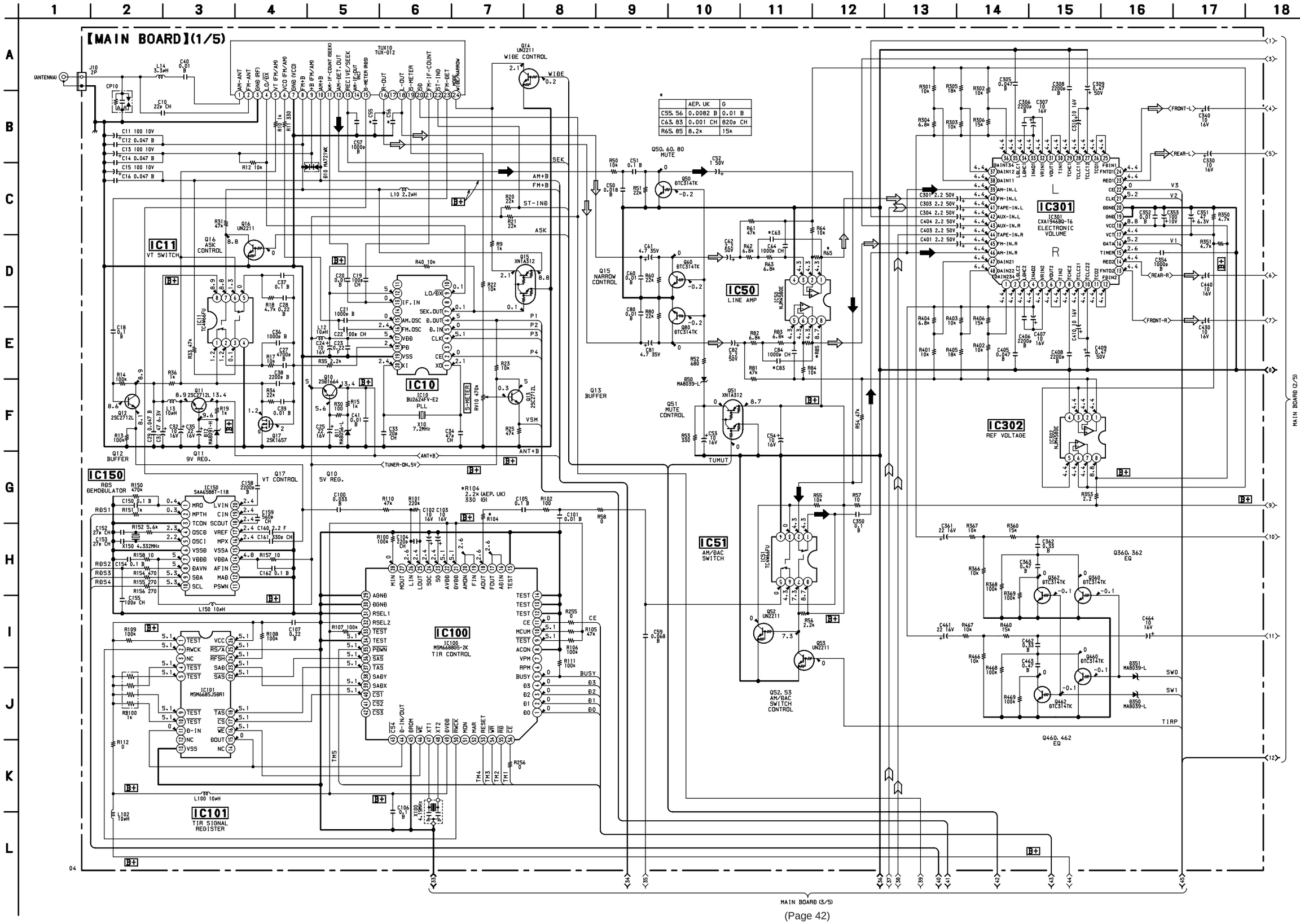
| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|---|---|
| D10 | D-10 | D705 | B-5 | Q16 | D-9 |
| (D11) | E-8 | D706 | B-5 | Q17 | C-9 |
| (D12) | E-9 | D707 | B-5 | (Q50) | G-10 |
| (D50) | G-10 | D708 | B-5 | Q51 | G-9 |
| D200 | E-2 | (D709) | B-3 | Q52 | G-8 |
| (D201) | E-2 | (D710) | B-2 | Q53 | G-8 |
| D202 | F-2 | D711 | B-7 | Q60 | G-9 |
| D350 | C-5 | (D712) | C-3 | Q80 | G-9 |
| D351 | D-6 | D713 | C-3 | Q201 | E-2 |
| (D501) | H-4 | D714 | C-3 | Q202 | F-2 |
| (D502) | H-5 | (D715) | B-3 | (Q203) | F-2 |
| D503 | H-6 | D717 | B-7 | (Q204) | D-2 |
| D504 | H-4 | D718 | B-3 | Q250 | F-8 |
| (D505) | H-5 | D719 | C-2 | Q330 | B-9 |
| D506 | H-6 | D901 | C-4 | Q340 | B-9 |
| D507 | B-3 | | | Q360 | C-6 |
| (D508) | A-7 | IC10 | D-8 | Q361 | B-8 |
| (D509) | B-7 | IC11 | D-9 | Q362 | C-6 |
| (D510) | B-7 | IC50 | G-8 | Q430 | B-8 |
| (D512) | H-9 | IC51 | G-9 | Q440 | B-9 |
| (D513) | H-10 | IC100 | H-7 | Q460 | C-6 |
| (D514) | H-10 | IC101 | H-7 | Q461 | B-8 |
| (D515) | H-9 | (IC150) | H-7 | Q462 | D-5 |
| (D516) | H-9 | (IC201) | F-2 | (Q501) | H-6 |
| D517 | H-10 | IC250 | F-8 | Q502 | H-6 |
| (D518) | H-10 | IC301 | E-7 | Q503 | H-5 |
| (D519) | H-9 | IC302 | E-7 | (Q504) | H-4 |
| (D520) | H-9 | IC310 | C-9 | Q505 | H-4 |
| (D521) | H-9 | IC350 | C-7 | (Q506) | H-5 |
| (D522) | H-9 | IC383 | C-7 | Q507 | H-5 |
| D523 | H-6 | IC410 | C-8 | Q508 | H-6 |
| D524 | H-4 | (IC500) | H-2 | Q509 | H-6 |
| D525 | H-10 | IC501 | H-2 | Q510 | H-9 |
| (D527) | H-8 | (IC502) | D-1 | Q511 | H-9 |
| D530 | E-1 | (IC503) | E-1 | Q512 | C-4 |
| D531 | G-1 | IC600 | G-4 | (Q550) | G-1 |
| D532 | G-1 | IC602 | C-2 | Q551 | G-2 |
| D533 | F-1 | (IC700) | A-5 | (Q600) | C-2 |
| D534 | G-1 | IC900 | E-5 | (Q601) | H-2 |
| D535 | H-6 | IC901 | E-5 | Q602 | C-2 |
| (D536) | H-9 | (IC902) | E-3 | Q603 | D-2 |
| (D537) | H-8 | IC903 | E-3 | (Q605) | F-3 |
| D550 | G-1 | (IC904) | C-5 | (Q606) | F-3 |
| (D601) | C-1 | IC905 | E-5 | Q700 | B-7 |
| (D602) | A-1 | IC906 | F-5 | Q701 | B-7 |
| (D603) | B-1 | IC907 | E-4 | Q702 | B-7 |
| D604 | C-2 | | | Q703 | D-3 |
| (D605) | C-2 | Q10 | E-8 | Q704 | D-4 |
| (D608) | B-1 | Q11 | E-9 | Q705 | C-4 |
| D701 | B-5 | (Q12) | F-10 | Q706 | B-5 |
| D702 | B-5 | Q13 | G-10 | Q902 | C-4 |
| D703 | B-5 | Q14 | G-10 | | |
| D704 | B-5 | (Q15) | E-9 | | |

( ) : SIDE B

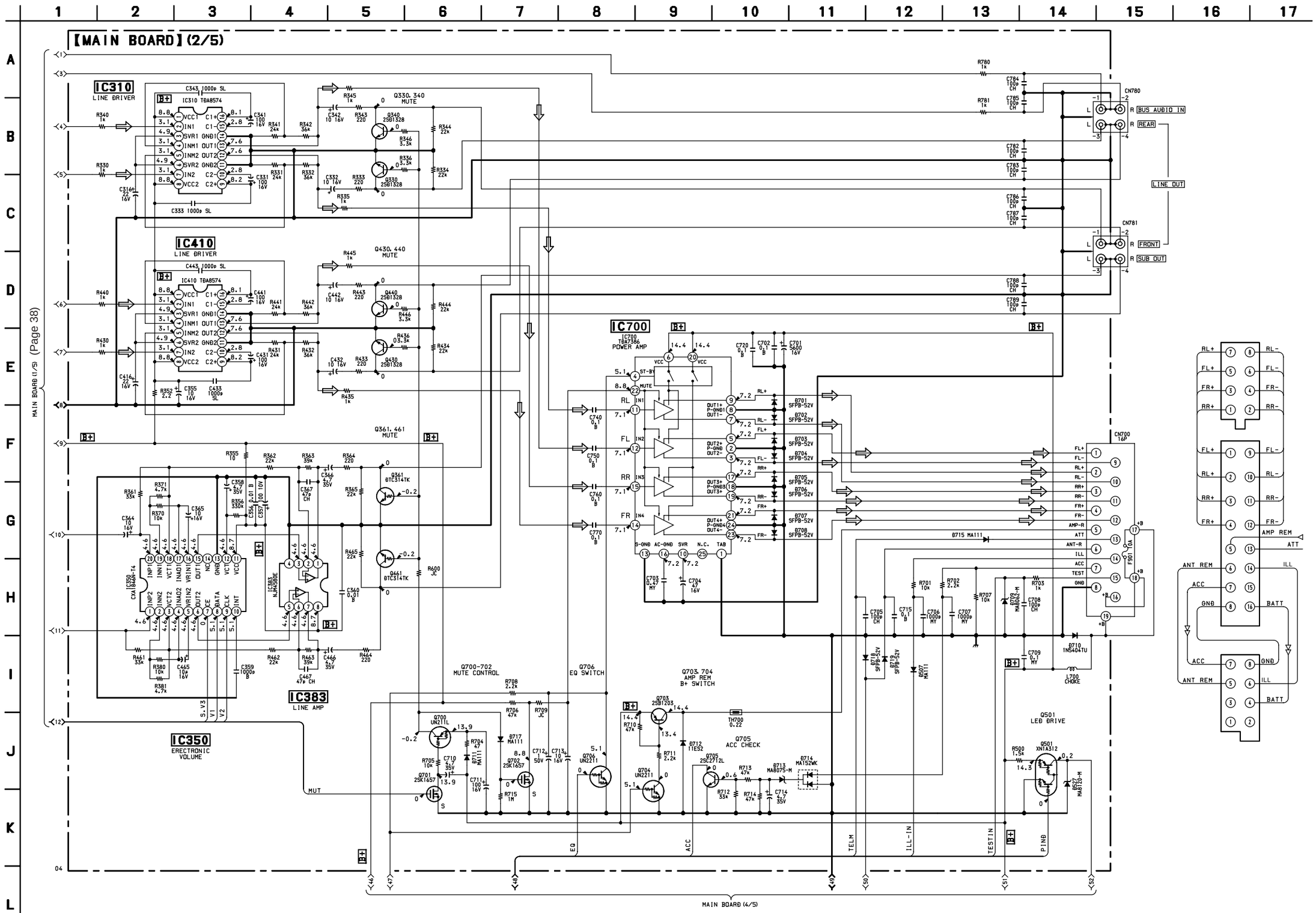
## 6-6. PRINTED WIRING BOARD — MAIN SECTION (SIDE B) —



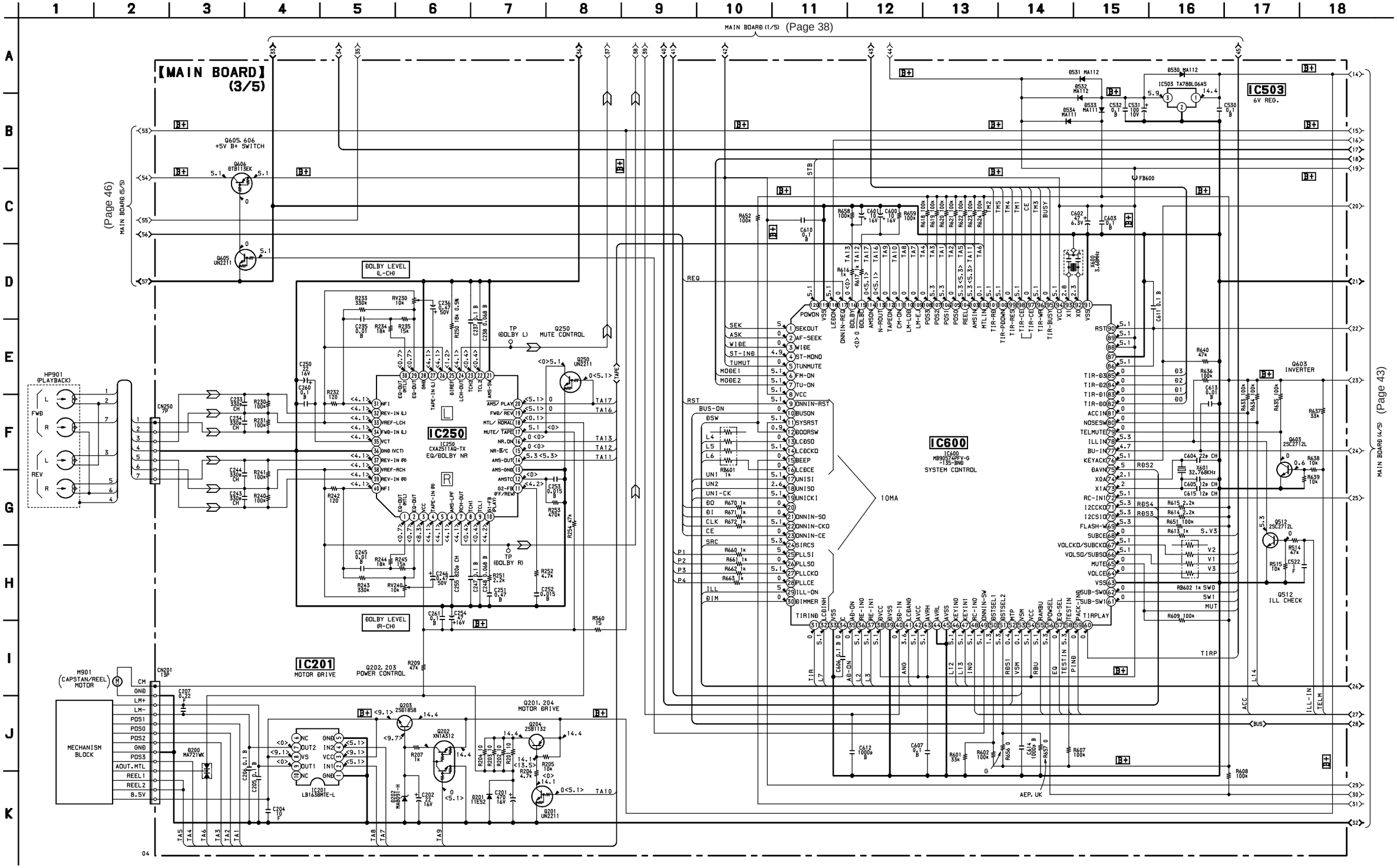
## 6-7. SCHEMATIC DIAGRAM — MAIN SECTION (1/5) — • Refer to page 53 for IC Block Diagrams.



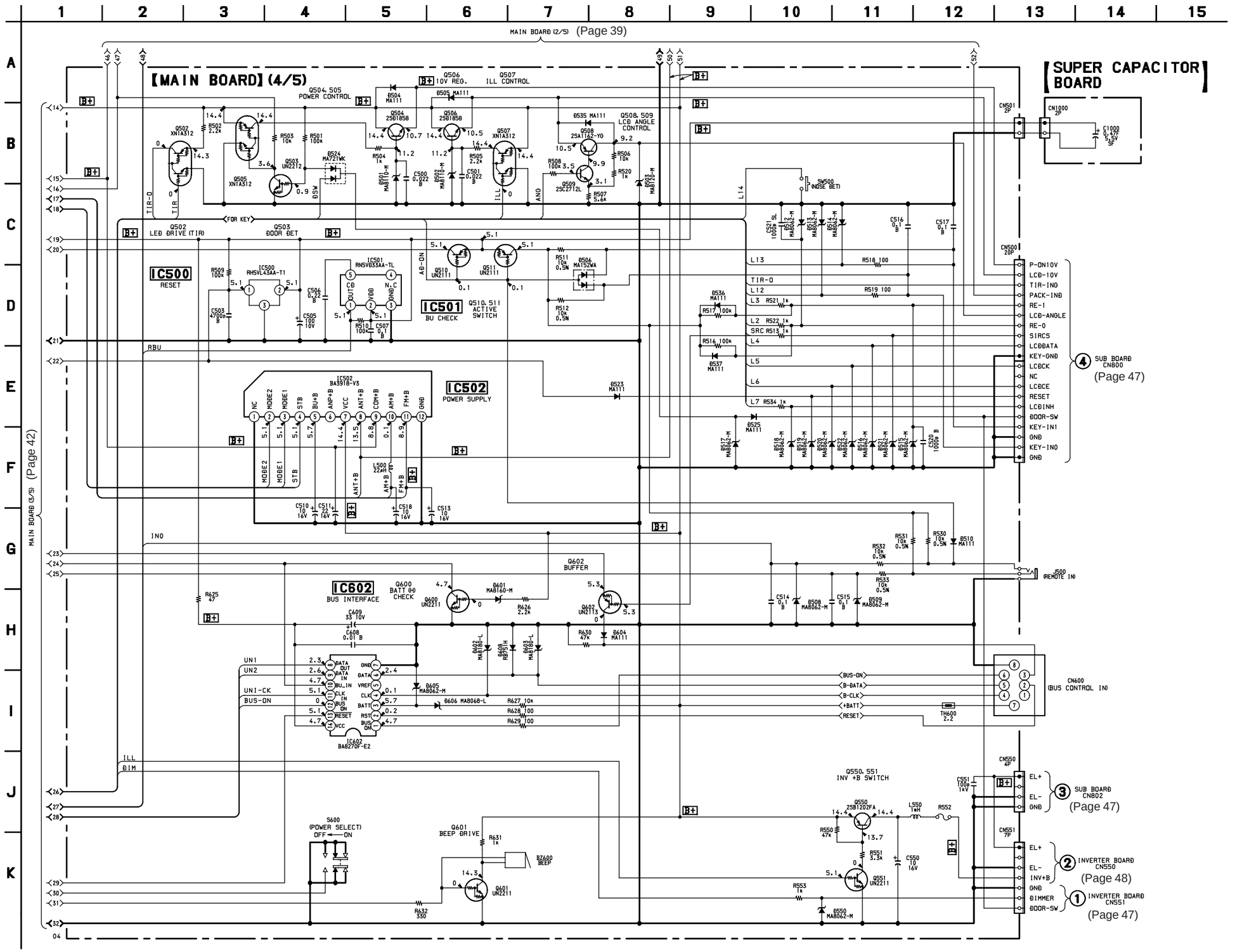
## 6-8. SCHEMATIC DIAGRAM — MAIN SECTION (2/5) — • Refer to page 53 for IC Block Diagrams.



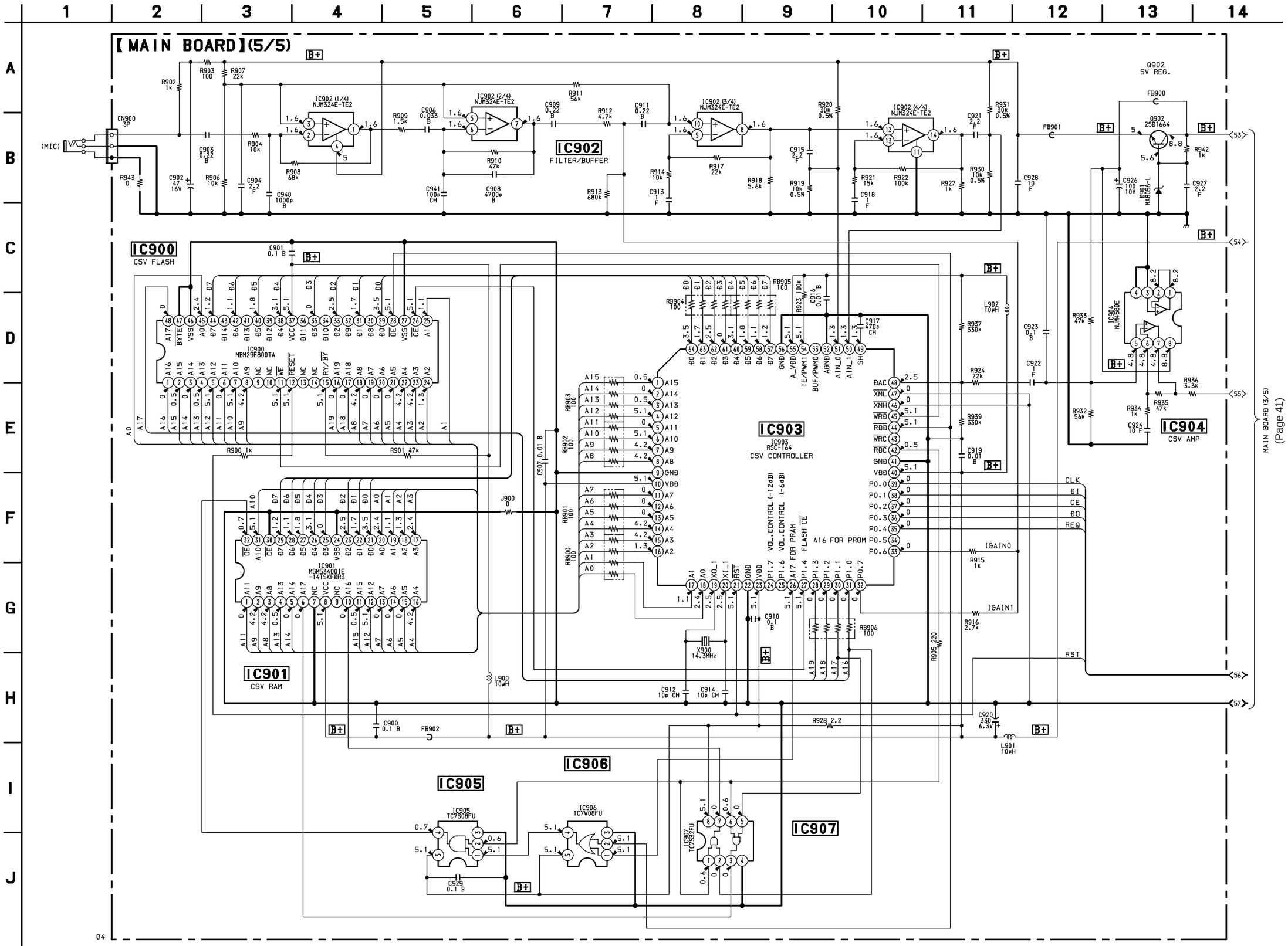
## 6-9. SCHEMATIC DIAGRAM — MAIN SECTION (3/5) — • Refer to page 53 for IC Block Diagrams.



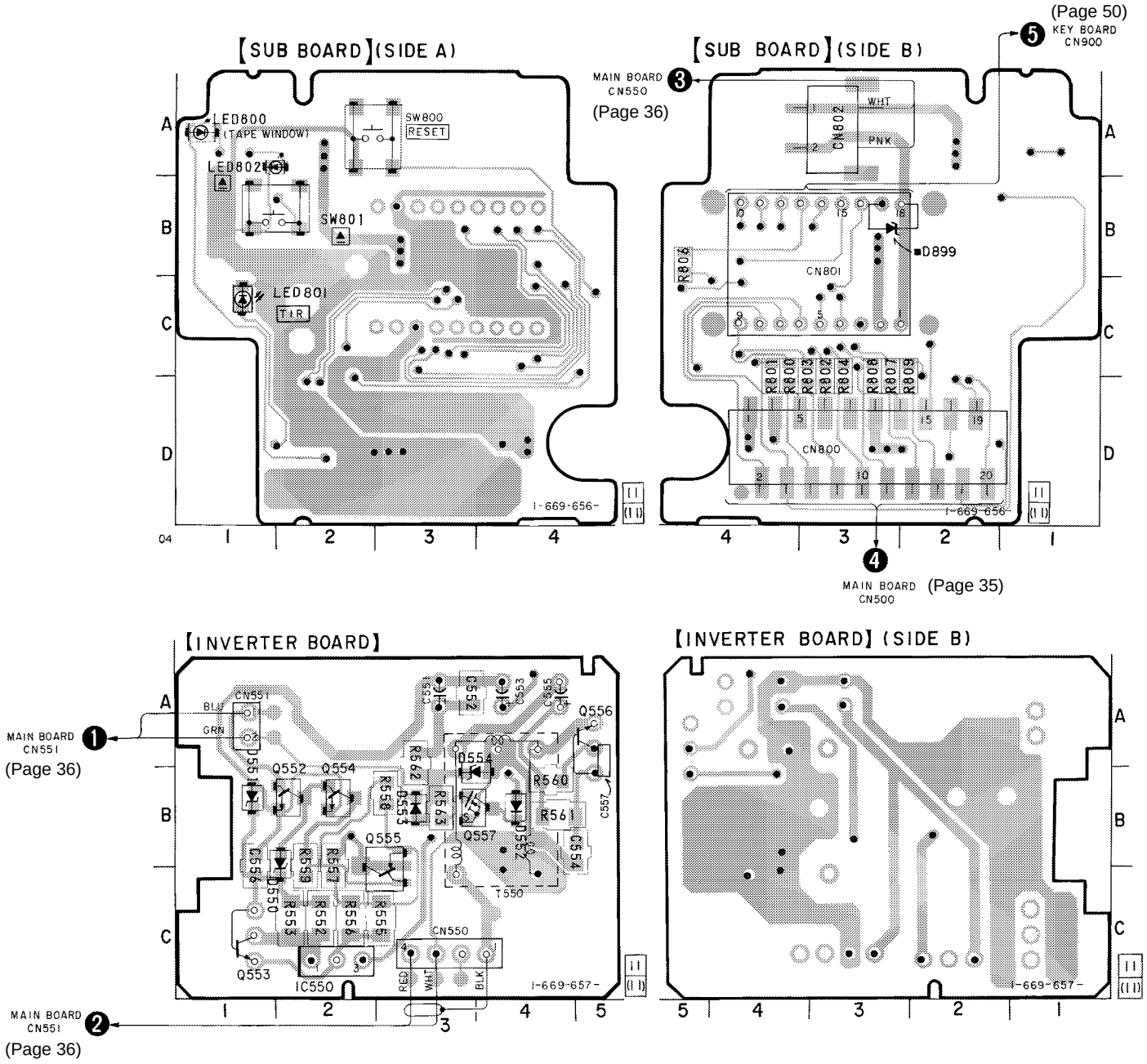
## 6-10. SCHEMATIC DIAGRAM — MAIN SECTION (4/5) — • Refer to page 53 for IC Block Diagrams.



6-11. SCHEMATIC DIAGRAM — MAIN SECTION (5/5) — • Refer to page 53 for IC Block Diagrams.



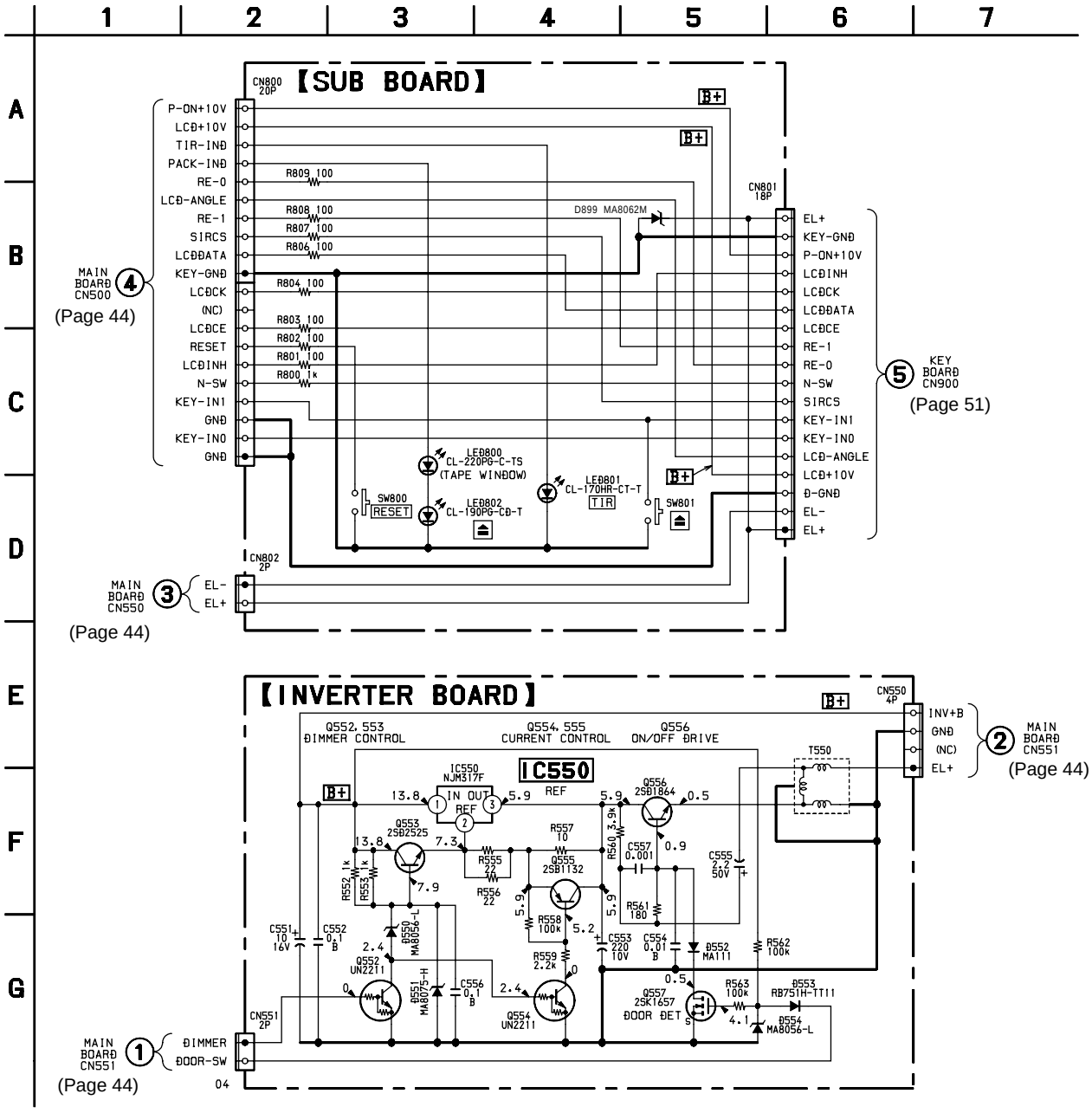
## 6-12. PRINTED WIRING BOARDS — INVERTER/SUB SECTION —



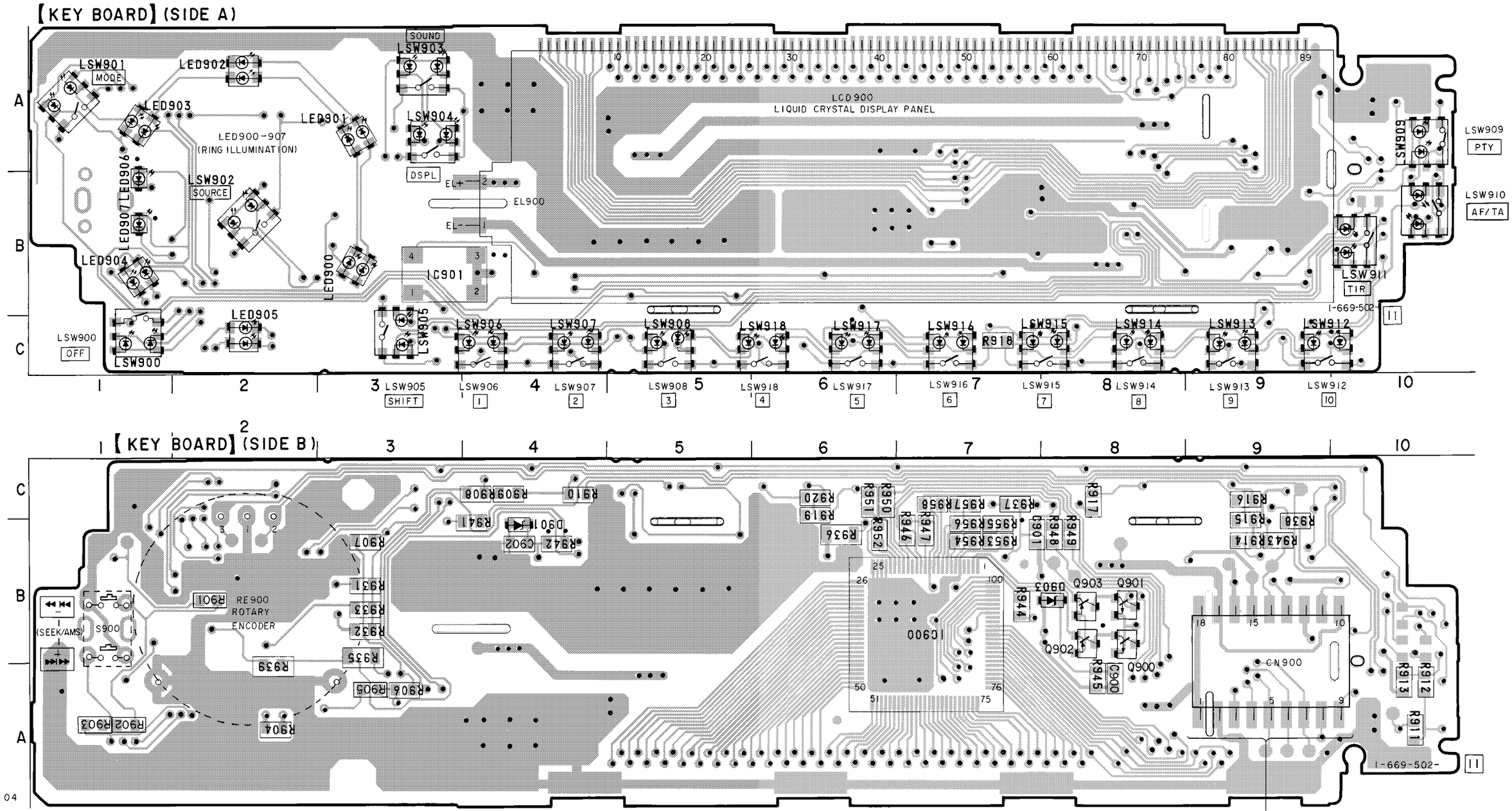

**• Semiconductor Location (INVERTER board)**

| Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|
| D550 | B-2 | Q552 | B-2 |
| D551 | B-1 | Q553 | C-1 |
| D552 | B-4 | Q554 | B-2 |
| D553 | B-3 | Q555 | C-3 |
| D554 | B-4 | Q556 | A-5 |
| | | Q557 | B-3 |
| IC550 | C-2 | | |

## 6-13. SCHEMATIC DIAGRAM — INVERTER/SUB SECTION —



## 6-14. PRINTED WIRING BOARD — DISPLAY SECTION —

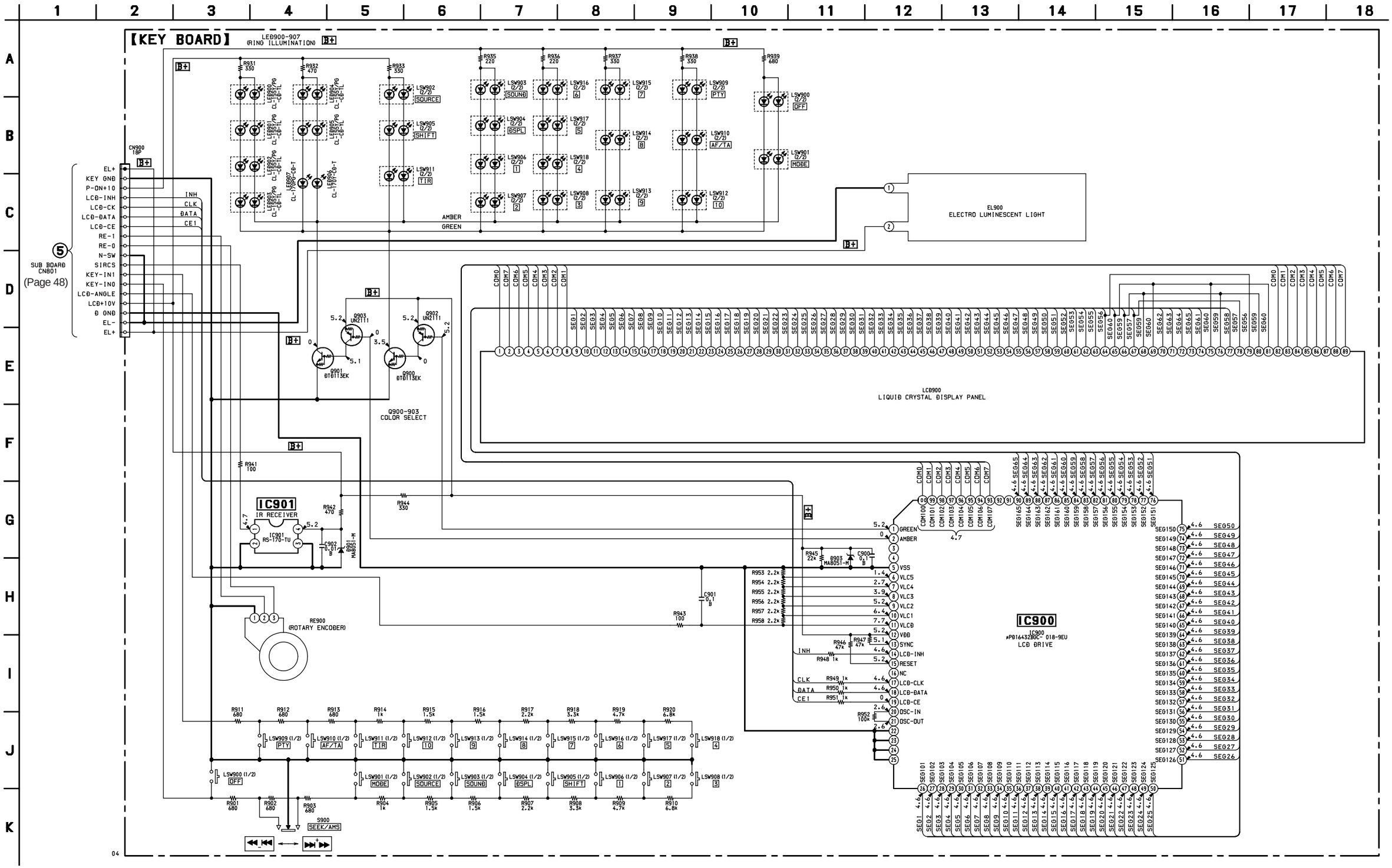



• **Semiconductor Location**

| Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|
| (D901) | B-4 | LED904 | B-1 |
| (D903) | B-8 | LED905 | C-2 |
| | | LED906 | B-1 |
| (IC900) | B-7 | LED907 | B-1 |
| IC901 | B-3 | | |
| | | (Q900) | B-8 |
| LED900 | B-3 | (Q901) | B-8 |
| LED901 | A-3 | (Q902) | B-8 |
| LED902 | A-2 | (Q903) | B-8 |
| LED903 | A-1 | | |

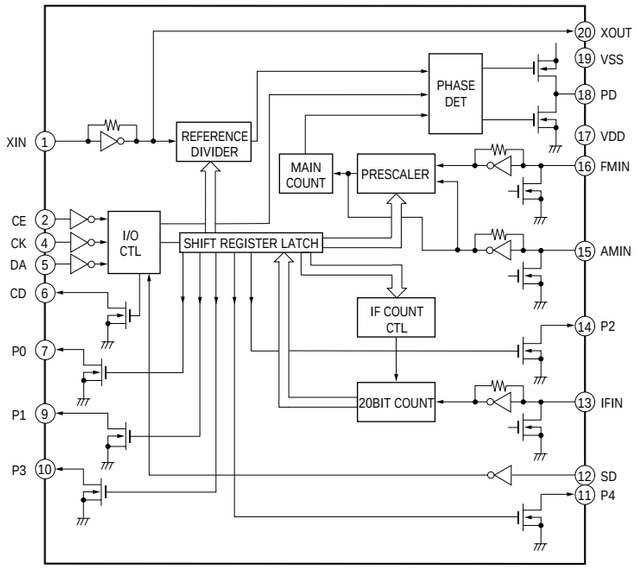
( ) : SIDE B

## 6-15. SCHEMATIC DIAGRAM — DISPLAY SECTION —

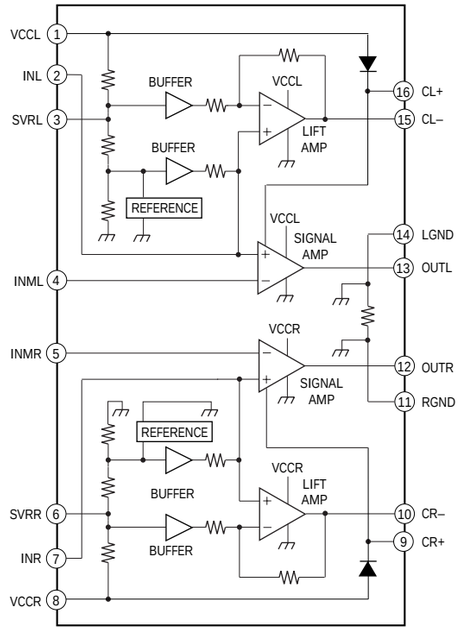


## • IC Block Diagrams

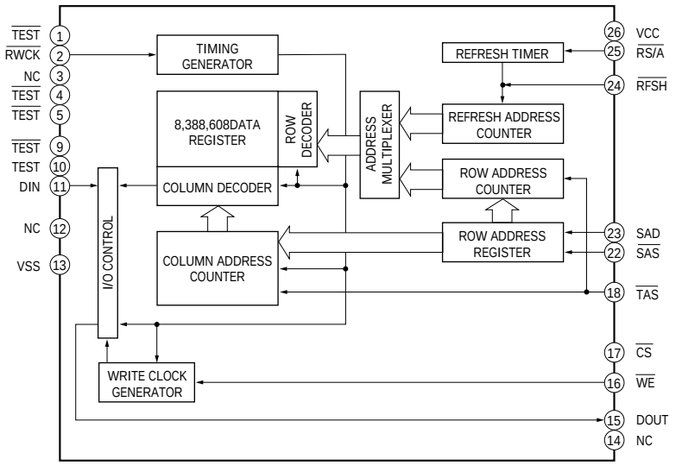
### IC10 BU2624FV-E2



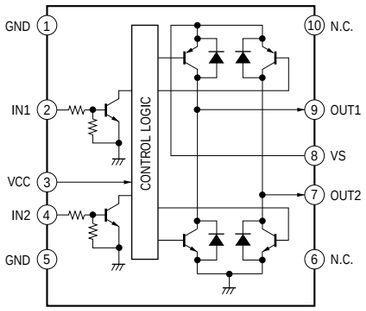

### IC310, 410 TDA8574(T)



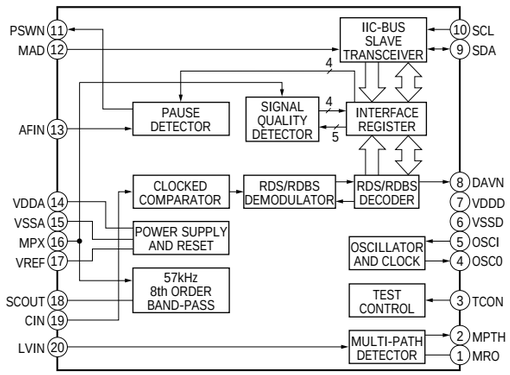

### IC101 MSM6685JSDR1



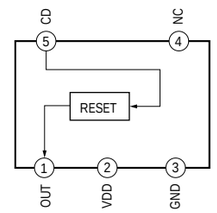

### IC201 LB1638MTP-T2



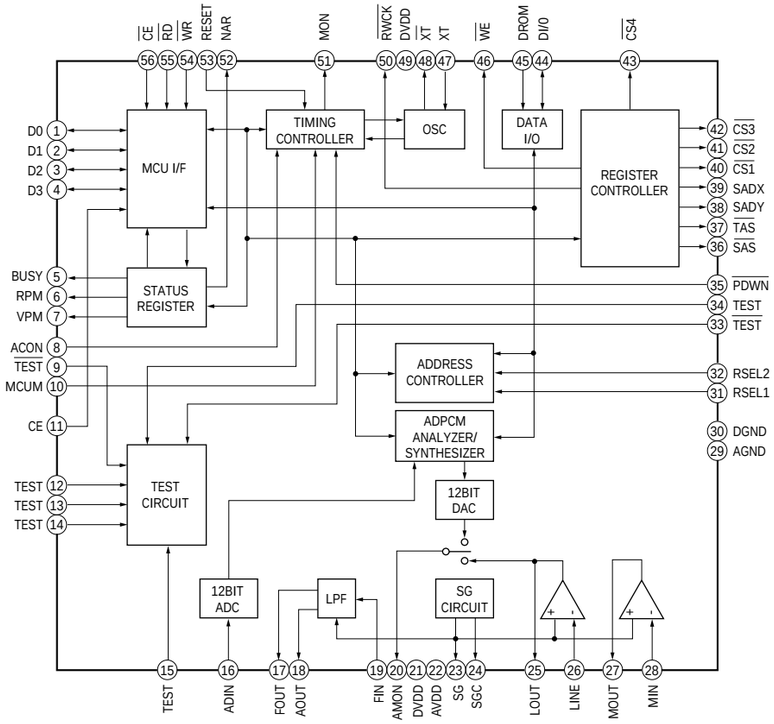

### IC150 SAA6588



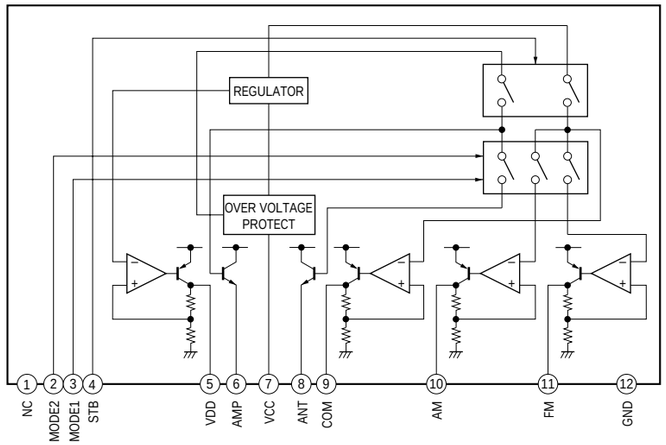

### IC501 RN5VD33AA-TL



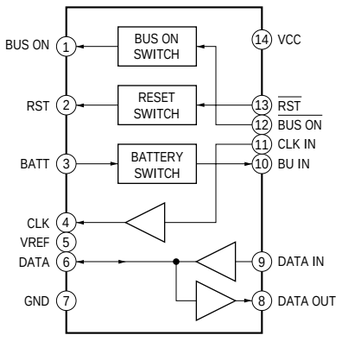

### IC100 MSM6688GS



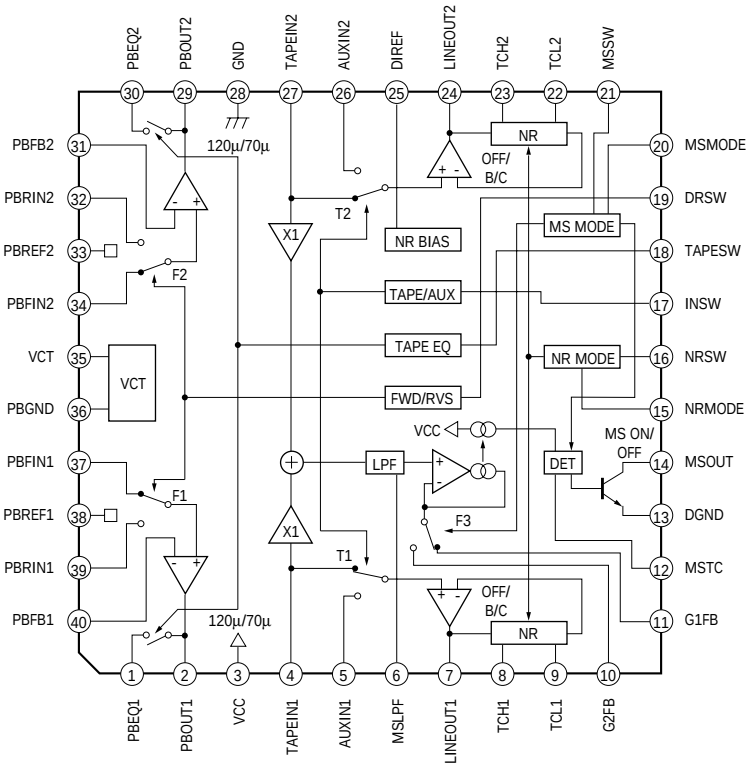

### IC502 BA3918-V3



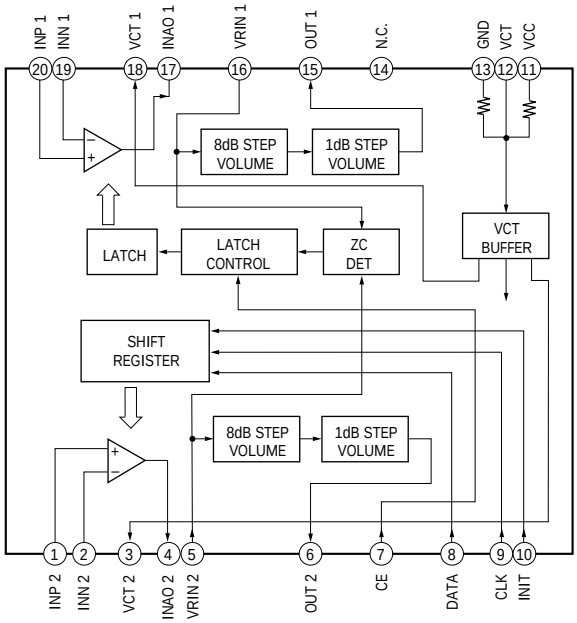

### IC602 BA8270F-E2



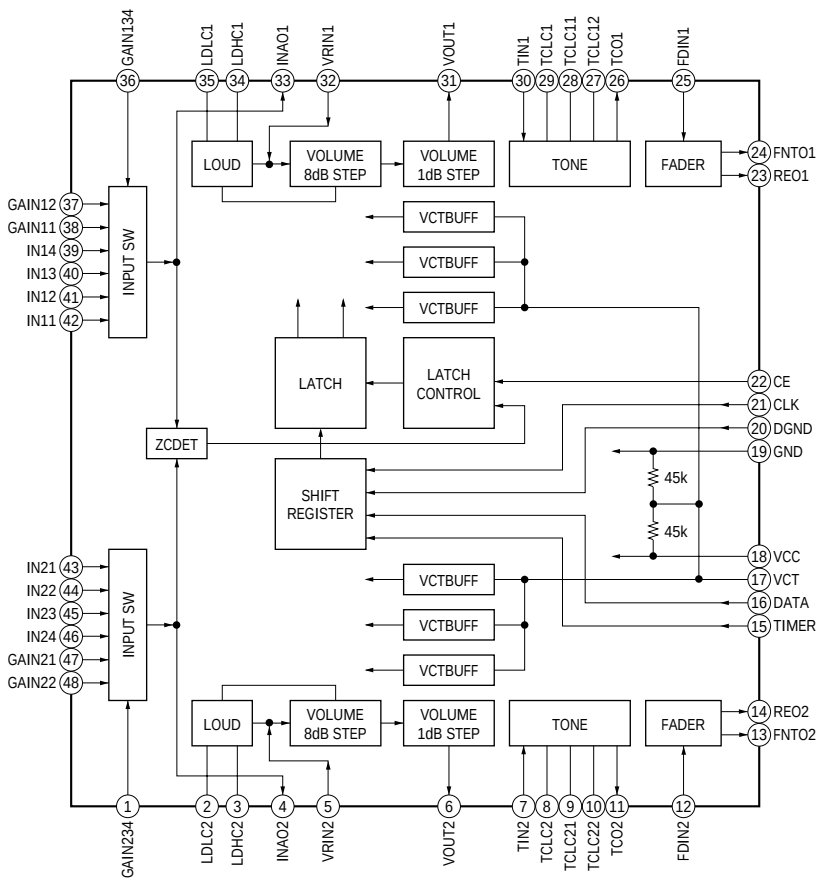
## IC250 CXA2511AQ



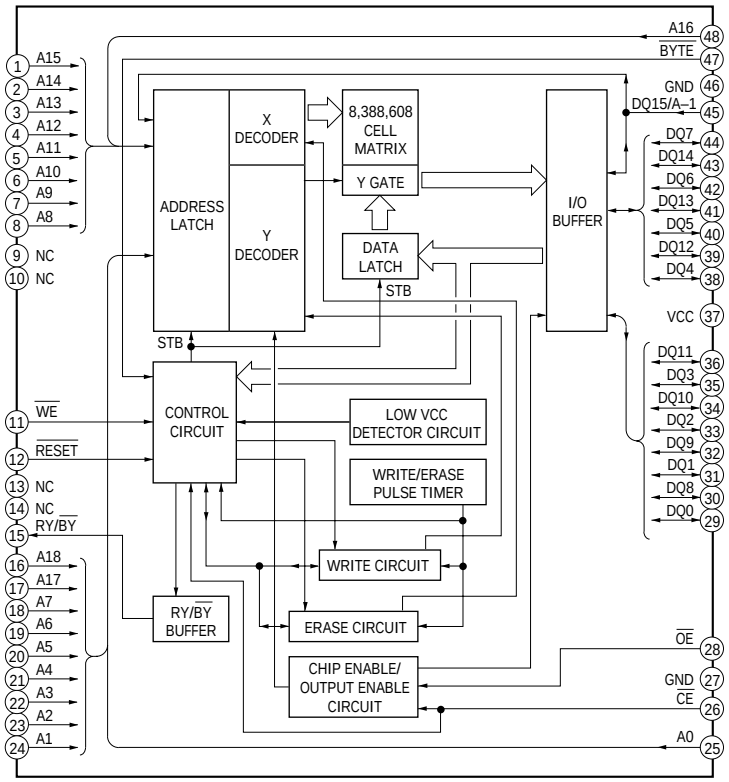

## IC350 CXA1846N-T4



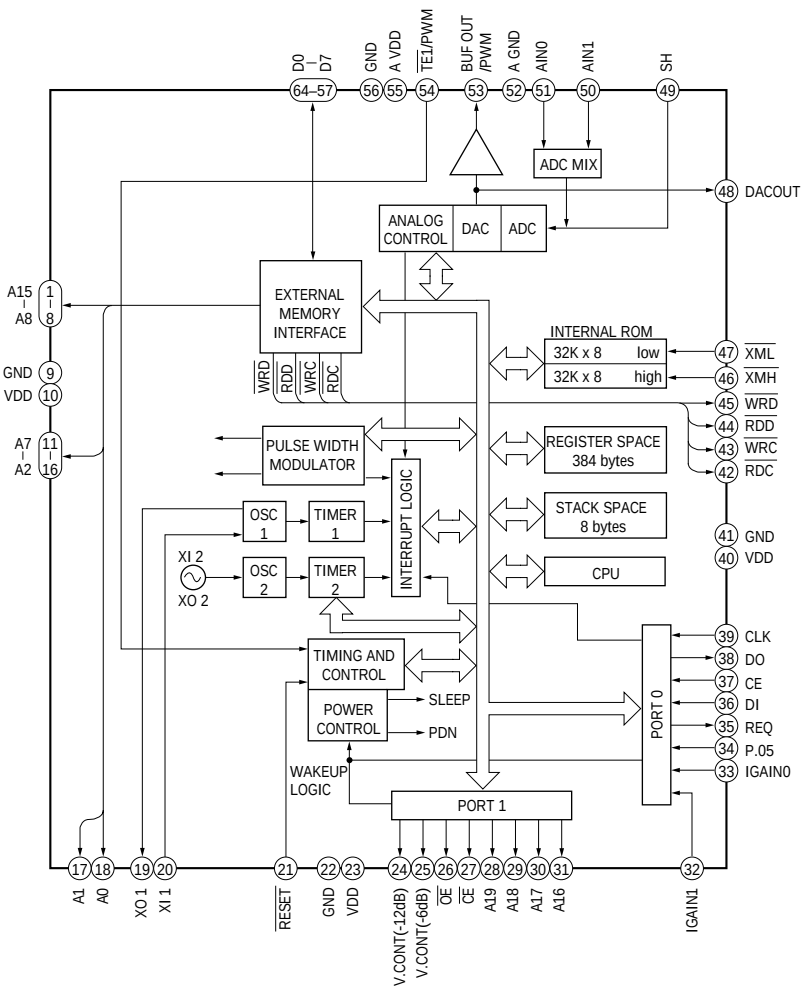

## IC301 CXA1946BQ-T6



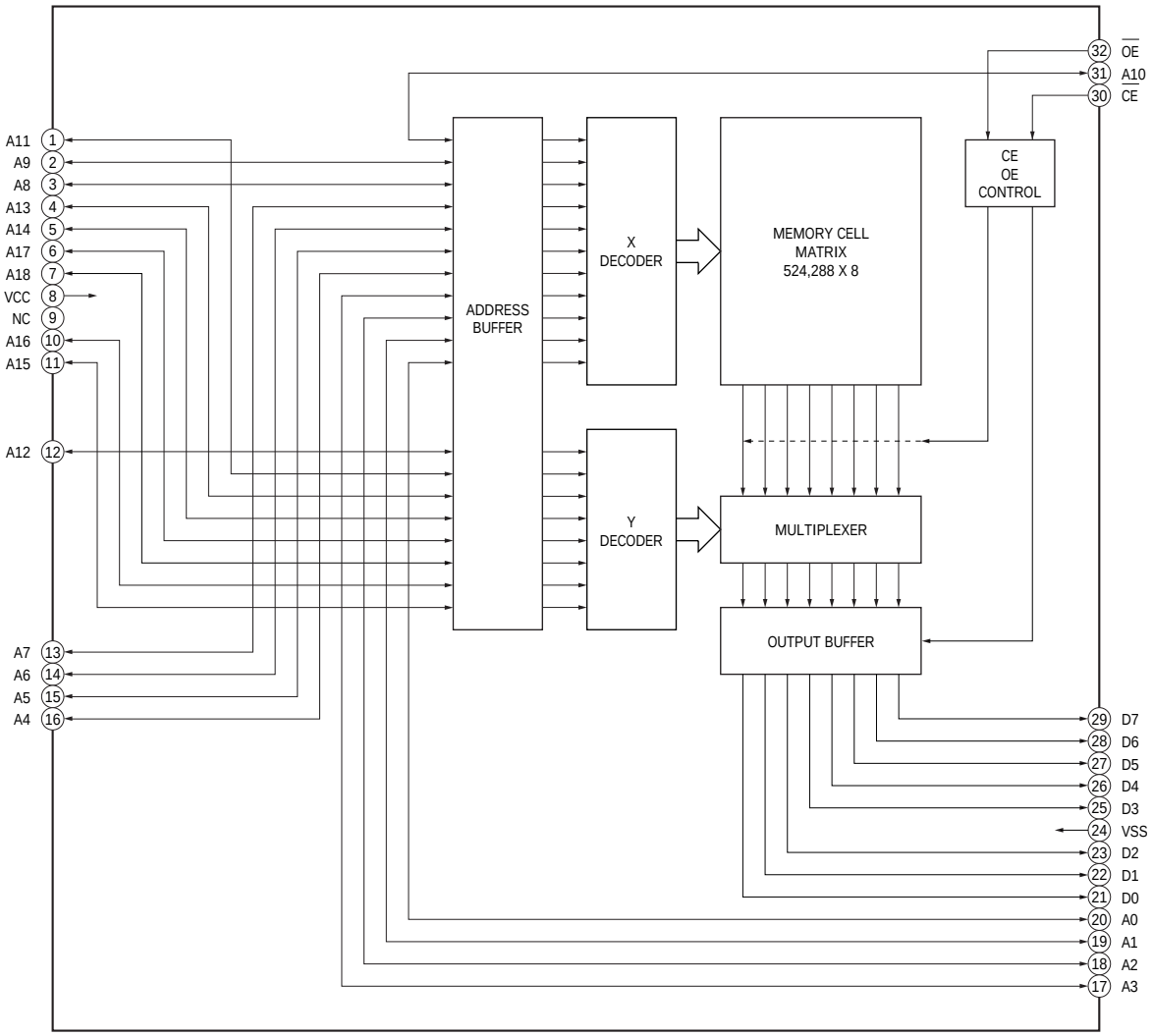
## IC900 MBM29F800-DISPU




## IC903 RSC-164



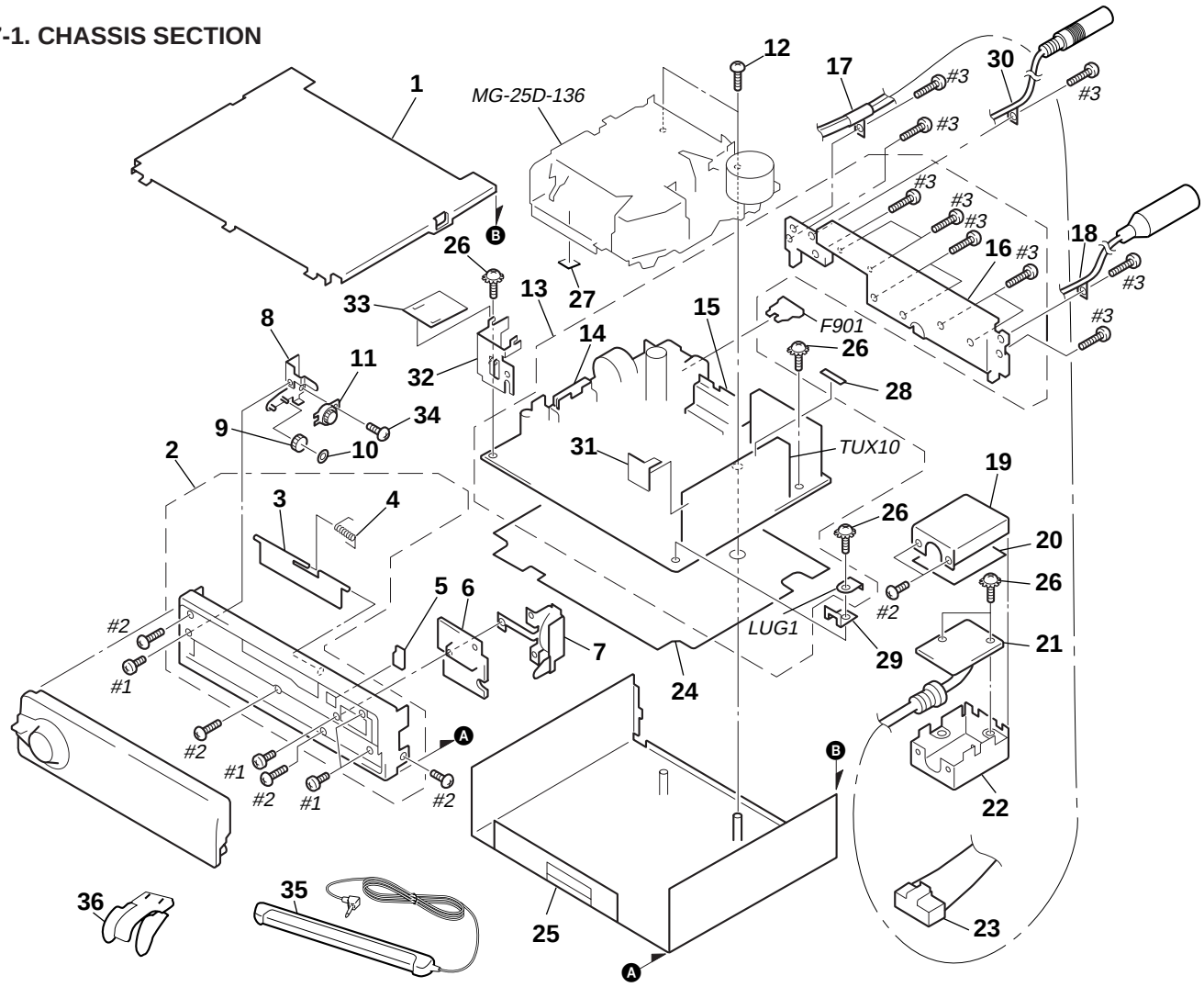
## IC901 MSM534001E-14TSKFDR3



# SECTION 7
# EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  G : German model
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

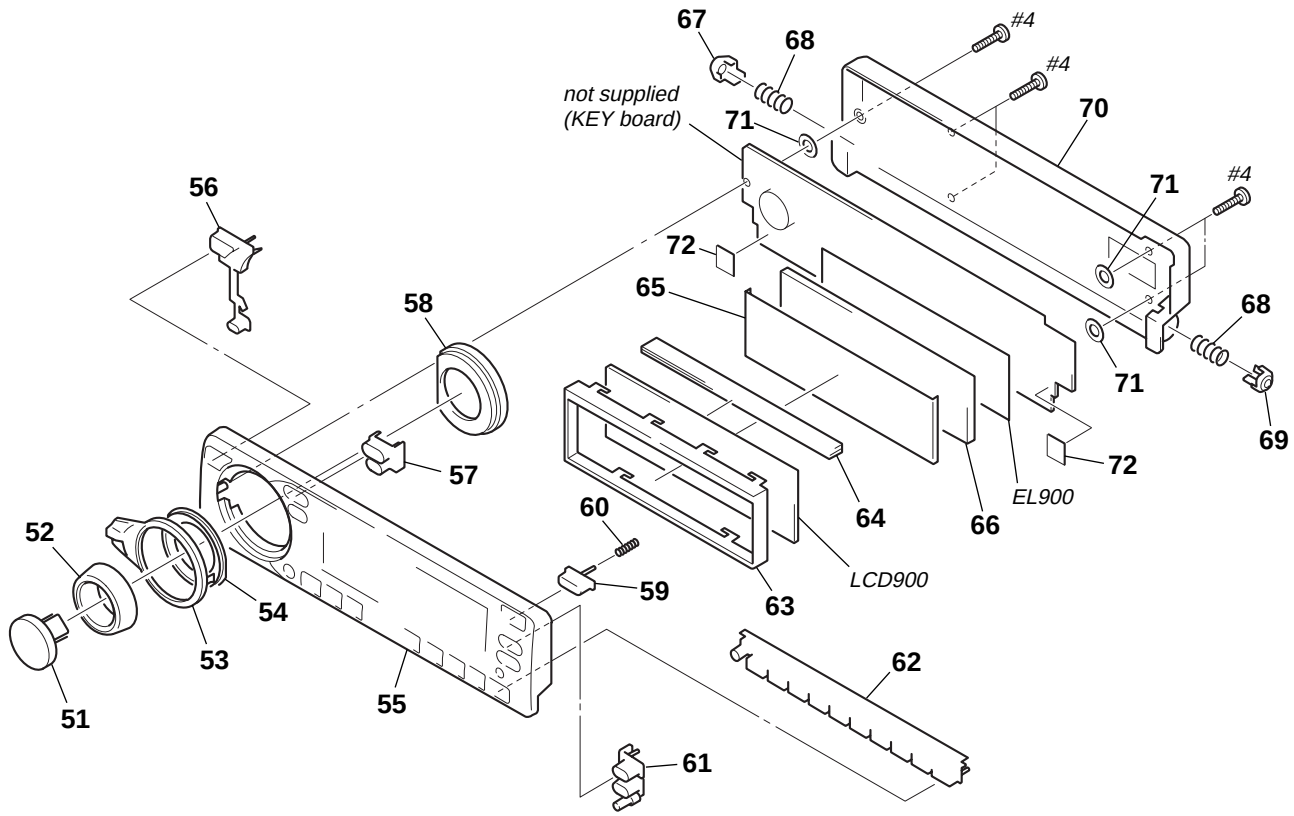
## 7-1. CHASSIS SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 1 | 3-022-316-01 | COVER | |
| 2 | X-3375-093-1 | PANEL ASSY, SUB | |
| 3 | 3-922-165-92 | DOOR, CASSETTE | |
| 4 | 3-935-003-01 | SPRING (C DOOR), TORSION | |
| 5 | 3-022-338-01 | BUTTON (EJECT) | |
| * 6 | 1-669-656-11 | SUB BOARD | |
| 7 | X-3375-068-1 | LOCK ASSY | |
| 8 | X-3375-066-1 | BRACKET (GEAR) ASSY | |
| 9 | 3-011-170-01 | GEAR (HOLDER) | |
| 10 | 3-341-752-11 | WASHER, POLYETHYLENE | |
| 11 | 3-953-235-01 | DAMPER, OIL | |
| 12 | 3-919-171-01 | SCREW (2.6X6) (C TIGHT) | |
| * 13 | A-3317-117-A | MAIN BOARD, COMPLETE (AEP,UK) | |
| * 13 | A-3317-119-A | MAIN BOARD, COMPLETE (G) | |
| 14 | 3-011-078-01 | BRACKET (POWER IC) | |
| 15 | 3-022-317-01 | BRACKET (AMP) | |
| 16 | 3-022-306-01 | HEAT SINK | |
| 17 | 1-783-495-11 | CORD (WITH CONNECTOR) (INVERTER) | |
| 18 | 1-777-246-11 | CORD (WITH CONNECTOR) (ANT) | |
| 19 | 3-937-282-01 | CASE (UPPER) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 20 | 3-938-138-01 | SHEET (E) | |
| * 21 | A-3313-920-A | INVERTER BOARD, COMPLETE | |
| 22 | 3-937-812-01 | CASE (LOWER) | |
| 23 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | |
| * 24 | 3-022-307-01 | INSULATED PLATE | |
| * 25 | X-3375-081-1 | CHASSIS ASSY | |
| 26 | 3-915-923-01 | SCREW, GROUND POINT | |
| * 27 | 3-026-471-01 | SHEET (MECHANISM DECK) | |
| * 28 | 3-355-209-01 | PLATE (B), GROUND | |
| * 29 | 3-023-774-01 | PLATE (LOCK), GROUND | |
| 30 | 1-783-884-11 | CORD, CONNECTION (MIC) | |
| * 31 | 3-025-352-01 | PLATE (INV), SHIELD | |
| * 32 | 3-029-830-01 | BRACKET (CAP) | |
| * 33 | 1-671-897-11 | SUPER CAPACITOR BOARD | |
| 34 | 3-713-786-51 | SCREW +P 2X3 | |
| 35 | 1-475-982-11 | MICROPHONE UNIT | |
| 36 | X-3375-861-1 | HOLDER (MIC) ASSY | |
| F901 | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| * LUG1 | 1-537-738-21 | TERMINAL, EARTH | |
| TUX10 | A-3282-045-A | TUNER UNIT (TUX-012(E)) | |

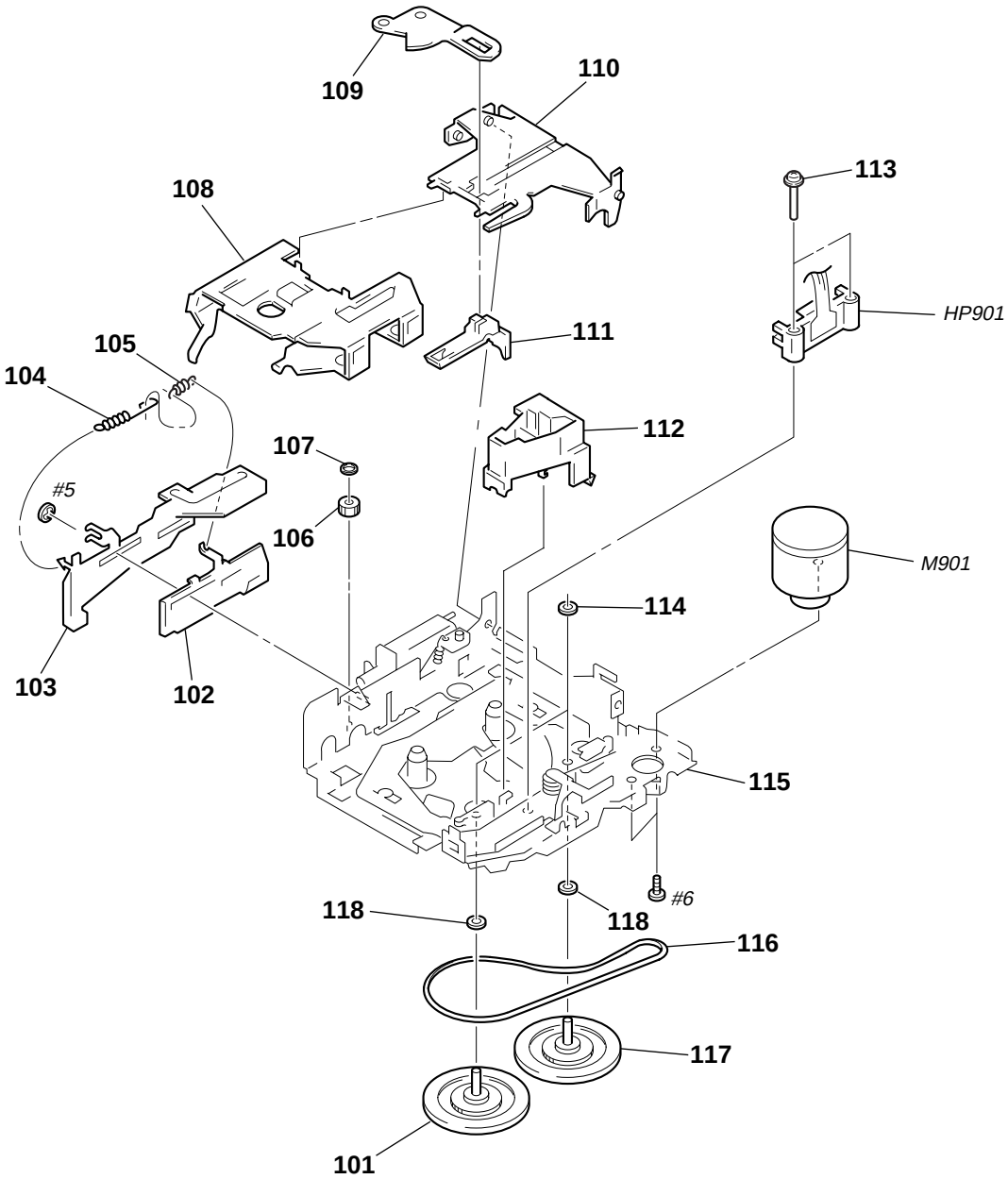
## 7-2. FRONT PANEL SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | 3-022-329-01 | BUTTON (SOURCE) | |
| 52 | 3-022-322-01 | KNOB | |
| 53 | 3-022-323-01 | LEVER (SHUTTLE) | |
| 54 | 3-022-324-01 | PLATE (SHUTTLE), LIGHT GUIDE | |
| 55 | X-3375-968-1 | PANEL SUB ASSY, FRONT | |
| 56 | 3-022-330-01 | BUTTON (MODE) | |
| 57 | 3-022-331-01 | BUTTON (SOUND) | |
| 58 | 3-022-325-01 | PLATE (RING), LIGHT GUIDE | |
| 59 | 3-022-333-01 | BUTTON (OPEN) | |
| 60 | 3-932-225-01 | SPRING (OPEN) | |
| 61 | 3-022-308-01 | BUTTON (PTY) | |
| 62 | 3-022-332-01 | BUTTON (10 KEY) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 63 | 3-022-327-01 | PLATE (LCD), GROUND | |
| 64 | 1-694-414-11 | CONDUCTOR BOARD, CONNECTION | |
| * 65 | 3-022-328-01 | ILLUMINATOR (LCD) | |
| * 66 | 3-022-326-01 | PLATE (LCD), LIGHT GUIDE | |
| 67 | 3-010-999-01 | BEARING (L) | |
| 68 | 3-010-998-01 | SPRING (BEARING) | |
| 69 | 3-011-000-01 | BEARING (R) | |
| 70 | 3-022-319-01 | PANEL, FRONT BACK | |
| 71 | 3-027-109-01 | WASHER, POLYETHYLENE | |
| 72 | 3-327-119-01 | SPACER (A) | |
| EL900 | 1-517-766-11 | LIGHT, ELECTRO LUMINESCENT | |
| LCD900 | 1-803-107-11 | DISPLAY PANEL, LIQUID CRYSTAL | |

## 7-3. MECHANISM DECK SECTION (MG-25D-136)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | A-3291-667-A | CLUTCH (FR) ASSY | |
| 102 | 3-019-130-01 | LEVER (LDG-A) | |
| 103 | 3-019-131-01 | LEVER (LDG-B) | |
| 104 | 3-020-539-01 | SPRING (LD-1), TENSION | |
| 105 | 3-020-540-01 | SPRING (LD-2), TENSION | |
| 106 | 3-020-542-01 | GEAR (LOADING FT) | |
| 107 | 3-341-753-11 | WASHER, POLYETHYLENE | |
| 108 | 3-020-533-01 | HOUSING | |
| 109 | 3-020-532-01 | ARM (SUCTION) | |
| 110 | 3-020-534-01 | HANGER | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 111 | 3-933-346-01 | CATCHER | |
| 112 | 3-933-344-01 | GUIDE (C) | |
| 113 | 3-014-798-01 | SCREW (HEAD), SPECIAL | |
| 114 | 3-364-151-01 | WASHER | |
| 115 | X-3375-625-2 | CHASSIS (SV) ASSY (D) | |
| 116 | 3-017-302-01 | BELT (25) | |
| 117 | 3-026-636-01 | FLYWHEEL (F) | |
| 118 | 3-701-437-21 | WASHER | |
| HP901 | 1-500-157-21 | HEAD, MAGNETIC (PLAYBACK) | |
| M901 | A-3291-665-A | MOTOR ASSY, MAIN (CAPSTAN/REEL) | |

# SECTION 8
# ELECTRICAL PARTS LIST

**INVERTER** **KEY**

NOTE:
- Due to standardization, replacements in the par ts list ma y be diff erent from the par ts specified in the diag rams or the components used on the set.
- -XX and -X mean standardized parts, so the y ma y ha ve some diff erence from the original one.
- RESIST ORS
  All resistors are in ohms.
  METAL:Metal-film resistor .
  METAL OXIDE: Metal o xide-film resistor .
  F:nonflammable
- Items mar ked "*"are not stoc ked since the y are seldom required f or routine ser vice . Some delay should be anticipated when ordering these items.
- SEMICONDUCT ORS
  In each case , u : μ, for e xample:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number , please include the board.

- Abbre viation
  G : German model

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-3313-920-A | INVERTER BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C551 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C552 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C553 | 1-126-934-11 | ELECT | 220uF | 20% | 10V |
| C554 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C555 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C556 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C557 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| | | < CONNECTOR > | | | |
| * CN550 | 1-564-507-11 | PLUG, CONNECTOR 4P | | | |
| CN551 | 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| | | < DIODE > | | | |
| D550 | 8-719-422-49 | DIODE MA8056-L | | | |
| D551 | 8-719-422-80 | DIODE MA8075-H-TX | | | |
| D552 | 8-719-404-49 | DIODE MA111 | | | |
| D553 | 8-719-033-43 | DIODE RB751H | | | |
| D554 | 8-719-422-49 | DIODE MA8056-L | | | |
| | | < IC > | | | |
| IC550 | 8-759-495-75 | IC NJM317F | | | |
| | | < TRANSISTOR > | | | |
| Q552 | 8-729-421-22 | TRANSISTOR UN2211 | | | |
| Q553 | 8-729-026-68 | TRANSISTOR 2SD2525(TP) | | | |
| Q554 | 8-729-421-22 | TRANSISTOR UN2211 | | | |
| Q555 | 8-729-903-46 | TRANSISTOR 2SB1132-P | | | |
| Q556 | 8-729-016-11 | TRANSISTOR 2SD1507M | | | |
| Q557 | 8-729-021-94 | FET 2SK1657-T1B | | | |
| | | < RESISTOR > | | | |
| R552 | 1-216-198-00 | RES,CHIP | 1K | 5% | 1/8W |
| R553 | 1-216-198-00 | RES,CHIP | 1K | 5% | 1/8W |
| R555 | 1-216-158-00 | RES,CHIP | 22 | 5% | 1/8W |
| R556 | 1-216-158-00 | RES,CHIP | 22 | 5% | 1/8W |
| R557 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R558 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R559 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R560 | 1-216-063-00 | RES,CHIP | 3.9K | 5% | 1/10W |
| R561 | 1-216-180-00 | RES,CHIP | 180 | 5% | 1/8W |
| R562 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R563 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| | | < TRANSFORMER > | | | |
| T550 | 1-431-831-11 | TRANSFORMER, OSCILLATION (EL) | | | |
| ********** | | | | | |
| | | KEY BOARD | | | |
| | | ********** | | | |
| | 1-694-414-11 | CONDUCTOR BOARD, CONNECTION | | | |
| * | 3-022-326-01 | PLATE (LCD), LIGHT GUIDE | | | |
| * | 3-022-327-01 | PLATE (LCD), GROUND | | | |
| * | 3-022-328-01 | ILLUMINATOR (LCD) | | | |
| | 3-327-119-01 | SPACER (A) | | | |
| | | < CAPACITOR > | | | |
| C900 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C901 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C902 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| | | < CONNECTOR > | | | |
| CN900 | 1-778-183-11 | PLUG, CONNECTOR 18P | | | |
| | | < DIODE > | | | |
| D901 | 8-719-420-90 | DIODE MA8051-M | | | |
| D903 | 8-719-420-90 | DIODE MA8051-M | | | |
| | | < ELECTRO LUMINESCENT > | | | |
| EL900 | 1-517-766-11 | LIGHT, ELECTRO LUMINESCENT | | | |
| | | < IC > | | | |
| IC900 | 8-759-496-75 | IC uPD16432BGC-018-9EU | | | |
| IC901 | 8-749-012-25 | IC RS-170-TU | | | |
| | | < LIQUID CRYSTAL DISPLAY > | | | |
| LCD900 | 1-803-107-11 | DISPLAY PANEL, LIQUID CRYSTAL | | | |
| | | < DIODE > | | | |
| LED900 | 8-719-987-45 | LED CL-155Y/PG-CD | | | |
| LED901 | 8-719-987-45 | LED CL-155Y/PG-CD | | | |
| LED902 | 8-719-987-45 | LED CL-155Y/PG-CD | | | |
| LED903 | 8-719-987-45 | LED CL-155Y/PG-CD | | | |
| LED904 | 8-719-987-45 | LED CL-155Y/PG-CD | | | |

# KEY MAIN

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| LED905 | 8-719-987-45 | LED CL-155Y/PG-CD | |
| LED906 | 8-719-033-13 | LED CL-170Y-CD-T | |
| LED907 | 8-719-033-14 | LED CL-170PG-CD-T | |
| | | < SWITCH > | |
| LSW900 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (OFF) | |
| LSW901 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (MODE) | |
| LSW902 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (SOURCE) | |
| LSW903 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (SOUND) | |
| LSW904 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (DSPL) | |
| LSW905 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (SHIFT) | |
| LSW906 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (1) | |
| LSW907 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (2) | |
| LSW908 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (3) | |
| LSW909 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (PTY) | |
| LSW910 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (AF/TA) | |
| LSW911 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (TIR) | |
| LSW912 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (10) | |
| LSW913 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (9) | |
| LSW914 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (8) | |
| LSW915 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (7) | |
| LSW916 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (6) | |
| LSW917 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (5) | |
| LSW918 | 1-762-620-21 | SWITCH, KEY BOARD (WITH LED) (4) | |
| | | < TRANSISTOR > | |
| Q900 | 8-729-904-66 | TRANSISTOR DTD113EK | |
| Q901 | 8-729-904-66 | TRANSISTOR DTD113EK | |
| Q902 | 8-729-424-08 | TRANSISTOR UN2111 | |
| Q903 | 8-729-424-08 | TRANSISTOR UN2111 | |
| | | < RESISTOR > | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R901 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R902 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R903 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R904 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R905 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R906 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R907 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R908 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R909 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R910 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R911 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R912 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R913 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R914 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R915 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R916 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R917 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R918 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R919 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R920 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R931 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R932 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R933 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R935 | 1-216-182-00 | RES,CHIP | 220 | 5% | 1/8W |
| R936 | 1-216-182-00 | RES,CHIP | 220 | 5% | 1/8W |
| R937 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R938 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R939 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R941 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R942 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R943 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R944 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R945 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R946 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R947 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R948 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R949 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R950 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R951 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R952 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R953 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R954 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R955 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R956 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R957 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R958 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| | | < ROTARY ENCODER > | | | |
| RE900 | 1-475-014-11 | ENCODER, ROTARY | | | |
| | | < SWITCH > | | | |
| S900 | 1-771-290-11 | SWITCH, SLIDE (SEEK/AMS) | | | |

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|---|---|---|---|---|---|
| * | A-3317-117-A | MAIN BOARD, COMPLETE (AEP,UK) | | | |
| * | A-3317-119-A | MAIN BOARD, COMPLETE (G) | | | |
| | | ********** | | | |
| * | 3-011-078-01 | BRACKET (POWER IC) | | | |
| * | 3-022-306-01 | HEAT SINK | | | |
| * | 3-022-317-01 | BRACKET (AMP) | | | |
| * | 3-025-352-01 | PLATE (INV), SHIELD | | | |
| | 7-685-794-09 | SCREW +PTT 2.6X10 (S) | | | |
| | | < BUZZER > | | | |
| BZ600 | 1-504-920-11 | BUZZER | | | |
| | | < CAPACITOR > | | | |
| C10 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C11 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| C12 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C13 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| C14 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C15 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| C16 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C18 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C19 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C20 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C21 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C22 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C23 | 1-164-222-11 | CERAMIC CHIP | 0.22uF | | 25V |
| C24 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C25 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C27 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C28 | 1-164-489-11 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C29 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C31 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C32 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C33 | 1-163-234-11 | CERAMIC CHIP | 20PF | 5% | 50V |
| C34 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C35 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C36 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C37 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C38 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C39 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C40 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C41 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C50 | 1-163-024-00 | CERAMIC CHIP | 0.018uF | 10% | 16V |
| C51 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C52 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C53 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C54 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C55 | 1-163-020-00 | CERAMIC CHIP | 0.0082uF | 10% | 50V (AEP,UK) |
| C55 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V (G) |
| C56 | 1-163-020-00 | CERAMIC CHIP | 0.0082uF | 10% | 50V (AEP,UK) |
| C56 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V (G) |
| C57 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C59 | 1-164-344-11 | CERAMIC CHIP | 0.068uF | 10% | 25V |
| C60 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C61 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C62 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C63 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V (G) |
| C63 | 1-163-275-11 | CERAMIC CHIP | 0.001uF | 5% | 50V (AEP,UK) |
| C64 | 1-163-275-11 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C80 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C81 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C82 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C83 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V (G) |
| C83 | 1-163-275-11 | CERAMIC CHIP | 0.001uF | 5% | 50V (AEP,UK) |
| C84 | 1-163-275-11 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C100 | 1-164-677-11 | CERAMIC CHIP | 0.033uF | 10% | 16V |
| C101 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C102 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C103 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C104 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C105 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C106 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C107 | 1-115-467-11 | CERAMIC CHIP | 0.22uF | 10% | 10V |
| C150 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C152 | 1-163-237-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C153 | 1-163-237-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C154 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C155 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C158 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C159 | 1-163-135-00 | CERAMIC CHIP | 560PF | 5% | 50V |
| C160 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C161 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C162 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C201 | 1-126-935-11 | ELECT | 470uF | 20% | 16V |
| C202 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C204 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C205 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C206 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C207 | 1-164-222-11 | CERAMIC CHIP | 0.22uF | | 25V |
| C230 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C233 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C234 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C235 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C236 | 1-126-159-11 | ELECT | 0.47uF | 20% | 50V |
| C237 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C238 | 1-164-344-11 | CERAMIC CHIP | 0.068uF | 10% | 25V |
| C243 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C244 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C245 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C246 | 1-126-159-11 | ELECT | 0.47uF | 20% | 50V |
| C247 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C248 | 1-164-344-11 | CERAMIC CHIP | 0.068uF | 10% | 25V |
| C250 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C251 | 1-107-823-11 | CERAMIC CHIP | 0.47uF | 10% | 16V |
| C252 | 1-163-023-00 | CERAMIC CHIP | 0.015uF | 5% | 50V |
| C253 | 1-163-023-00 | CERAMIC CHIP | 0.015uF | 5% | 50V |
| C254 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C255 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V |
| C260 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C261 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C301 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C303 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C304 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C305 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C306 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C307 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C308 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C309 | 1-126-159-11 | ELECT | 0.47uF | 20% | 50V |
| C310 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |

## MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C316 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C330 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C331 | 1-115-175-11 | ELECT | 100uF | 20% | 16V |
| C332 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C333 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C340 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C341 | 1-115-175-11 | ELECT | 100uF | 20% | 16V |
| C342 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C343 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C350 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C351 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C352 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C353 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C354 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C355 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C356 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C357 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C358 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C359 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C360 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C361 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C362 | 1-110-501-11 | CERAMIC CHIP | 0.33uF | 10% | 16V |
| C363 | 1-107-823-11 | CERAMIC CHIP | 0.47uF | 10% | 16V |
| C364 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C365 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C366 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C367 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C401 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C403 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C404 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C405 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C406 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C407 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C408 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C409 | 1-126-159-11 | ELECT | 0.47uF | 20% | 50V |
| C410 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C416 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C430 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C431 | 1-115-175-11 | ELECT | 100uF | 20% | 16V |
| C432 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C433 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C440 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C441 | 1-115-175-11 | ELECT | 100uF | 20% | 16V |
| C442 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C443 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C461 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C462 | 1-110-501-11 | CERAMIC CHIP | 0.33uF | 10% | 16V |
| C463 | 1-107-823-11 | CERAMIC CHIP | 0.47uF | 10% | 16V |
| C464 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C465 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C466 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C467 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C500 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C501 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C503 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C505 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C506 | 1-164-489-11 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C507 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C510 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C511 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C513 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C514 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C515 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C516 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C517 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C518 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C520 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C521 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C522 | 1-162-638-11 | CERAMIC CHIP | 1uF | | 16V |
| C530 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C531 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C532 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C550 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C551 | 1-107-421-11 | CERAMIC CHIP | 100PF | 10% | 100V |
| C600 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C601 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C602 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C603 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C604 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C605 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C606 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C607 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C608 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V |
| C609 | 1-124-229-00 | ELECT | 33uF | 20% | 10V |
| C610 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C611 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C612 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C613 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C614 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C615 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C701 | 1-111-233-11 | ELECT | 5600uF | 20% | 16V |
| C702 | 1-104-329-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C703 | 1-115-334-11 | FILM | 0.47uF | 5% | 50V |
| C704 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C705 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C706 | 1-136-227-11 | MYLAR | 0.001uF | 5% | 50V |
| C707 | 1-136-227-11 | MYLAR | 0.001uF | 5% | 50V |
| C708 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C709 | 1-115-326-11 | FILM | 0.1uF | 5% | 50V |
| C710 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C711 | 1-126-933-11 | ELECT | 100uF | 20% | 16V |
| C712 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C713 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C714 | 1-126-572-11 | ELECT | 4.7uF | 20% | 35V |
| C715 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C720 | 1-104-329-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C740 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C750 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C760 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C770 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C782 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C783 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C784 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C785 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C786 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C787 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C788 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C789 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C900 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C901 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C902 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C903 | 1-164-489-11 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C904 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C905 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C906 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C907 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C908 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C909 | 1-164-489-11 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C910 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C911 | 1-164-489-11 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C912 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C913 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C914 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C915 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C916 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C917 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C918 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C919 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C920 | 1-128-057-11 | ELECT | 330uF | 20% | 6.3V |
| C921 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C922 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C923 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C924 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C926 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C927 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C928 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C929 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C940 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C941 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| | | < CONNECTOR > | | | |
| * CN201 | 1-506-995-11 | PIN, CONNECTOR (PC BOARD) 13P | | | |
| CN250 | 1-766-260-11 | CONNECTOR, FFC/FPC (ZIF) 7P | | | |
| CN500 | 1-770-411-11 | CONNECTOR, BOARD TO BOARD 20P | | | |
| * CN501 | 1-506-984-11 | PIN, CONNECTOR (PC BOARD) 2P | | | |
| CN551 | 1-564-510-11 | PLUG, CONNECTOR 7P | | | |
| CN600 | 1-580-907-31 | PLUG, CONNECTOR (BUS CONTROL IN) | | | |
| CN700 | 1-774-701-11 | PIN, CONNECTOR 16P | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN780 | 1-774-699-12 | JACK, PIN 4P (BUS AUDIO IN, LINE OUT REAR) | |
| CN781 | 1-774-699-12 | JACK, PIN 4P (LINE OUT FRONT, SUB OUT) | |
| * CN900 | 1-564-719-11 | PIN, CONNECTOR (SMALL TYPE) 3P | |
| | | < DISCHARGE GAP > | |
| CP10 | 1-519-504-11 | GAP, DISCHARGE | |
| | | < DIODE > | |
| D10 | 8-719-040-04 | DIODE MA721WK-(TX) | |
| D11 | 8-719-422-49 | DIODE MA8056-L | |
| D12 | 8-719-422-97 | DIODE MA8091-M | |
| D50 | 8-719-422-16 | DIODE MA8039-L-TX | |
| D200 | 8-719-040-04 | DIODE MA721WK-(TX) | |
| D201 | 8-719-200-82 | DIODE 11ES2 | |
| D202 | 8-719-422-97 | DIODE MA8091-M | |
| D350 | 8-719-422-16 | DIODE MA8039-L-TX | |
| D351 | 8-719-422-16 | DIODE MA8039-L-TX | |
| D501 | 8-719-423-23 | DIODE MA8110-M | |
| D502 | 8-719-423-23 | DIODE MA8110-M | |
| D503 | 8-719-423-32 | DIODE MA8120-M | |
| D504 | 8-719-404-49 | DIODE MA111 | |
| D505 | 8-719-404-49 | DIODE MA111 | |
| D506 | 8-719-400-20 | DIODE MA152WA | |
| D507 | 8-719-404-49 | DIODE MA111 | |
| D508 | 8-719-422-64 | DIODE MA8062-M | |
| D509 | 8-719-422-64 | DIODE MA8062-M | |
| D510 | 8-719-404-49 | DIODE MA111 | |
| D512 | 8-719-422-64 | DIODE MA8062-M | |
| D513 | 8-719-422-64 | DIODE MA8062-M | |
| D514 | 8-719-422-64 | DIODE MA8062-M | |
| D515 | 8-719-422-64 | DIODE MA8062-M | |
| D516 | 8-719-422-64 | DIODE MA8062-M | |
| D517 | 8-719-422-64 | DIODE MA8062-M | |
| D518 | 8-719-422-64 | DIODE MA8062-M | |
| D519 | 8-719-422-64 | DIODE MA8062-M | |
| D520 | 8-719-422-64 | DIODE MA8062-M | |
| D521 | 8-719-422-64 | DIODE MA8062-M | |
| D522 | 8-719-422-64 | DIODE MA8062-M | |
| D523 | 8-719-404-49 | DIODE MA111 | |
| D524 | 8-719-040-04 | DIODE MA721WK-(TX) | |
| D525 | 8-719-404-49 | DIODE MA111 | |
| D527 | 8-719-423-32 | DIODE MA8120-M | |
| D530 | 8-719-067-56 | DIODE MA112-TX | |
| D531 | 8-719-067-56 | DIODE MA112-TX | |
| D532 | 8-719-067-56 | DIODE MA112-TX | |
| D533 | 8-719-404-49 | DIODE MA111 | |
| D534 | 8-719-404-49 | DIODE MA111 | |
| D535 | 8-719-404-49 | DIODE MA111 | |
| D536 | 8-719-404-49 | DIODE MA111 | |
| D537 | 8-719-404-49 | DIODE MA111 | |
| D550 | 8-719-422-64 | DIODE MA8062-M | |
| D601 | 8-719-022-90 | DIODE MA8160M | |

## MAIN

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D602 | 8-719-060-80 | DIODE MA8180-L-TX | |
| D603 | 8-719-060-80 | DIODE MA8180-L-TX | |
| D604 | 8-719-404-49 | DIODE MA111 | |
| D605 | 8-719-422-64 | DIODE MA8062-M | |
| D608 | 8-719-033-43 | DIODE RB751H | |
| D701 | 8-719-313-73 | DIODE SFPB-52 | |
| D702 | 8-719-313-73 | DIODE SFPB-52 | |
| D703 | 8-719-313-73 | DIODE SFPB-52 | |
| D704 | 8-719-313-73 | DIODE SFPB-52 | |
| D705 | 8-719-313-73 | DIODE SFPB-52 | |
| D706 | 8-719-313-73 | DIODE SFPB-52 | |
| D707 | 8-719-313-73 | DIODE SFPB-52 | |
| D708 | 8-719-313-73 | DIODE SFPB-52 | |
| D709 | 8-719-422-64 | DIODE MA8062-M | |
| D710 | 8-719-049-38 | DIODE 1N5404TU | |
| D711 | 8-719-404-49 | DIODE MA111 | |
| D712 | 8-719-200-82 | DIODE 11ES2 | |
| D713 | 8-719-422-76 | DIODE MA8075-M | |
| D714 | 8-719-801-78 | DIODE 1SS184 | |
| D715 | 8-719-404-49 | DIODE MA111 | |
| D717 | 8-719-404-49 | DIODE MA111 | |
| D718 | 8-719-313-73 | DIODE SFPB-52 | |
| D719 | 8-719-313-73 | DIODE SFPB-52 | |
| D901 | 8-719-422-49 | DIODE MA8056-L | |
| | | < FUSE > | |
| F901 | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| | | < FERRITE BEAD > | |
| FB600 | 1-414-233-21 | INDUCTOR, FERRITE BEAD | |
| FB900 | 1-414-233-21 | INDUCTOR, FERRITE BEAD | |
| FB901 | 1-414-233-21 | INDUCTOR, FERRITE BEAD | |
| FB902 | 1-414-233-21 | INDUCTOR, FERRITE BEAD | |
| | | < IC > | |
| IC10 | 8-759-448-85 | IC BU2624FV-E2 | |
| IC11 | 8-759-184-64 | IC TC4W66FU | |
| IC50 | 8-759-711-82 | IC NJM4580E | |
| IC51 | 8-759-184-64 | IC TC4W66FU | |
| IC100 | 8-759-374-66 | IC MSM6688GS-2K | |
| IC101 | 8-759-180-46 | IC MSM6685JSDR1 | |
| IC150 | 8-759-492-59 | IC SAA6588T-118 | |
| IC201 | 8-759-823-87 | IC LB1638M | |
| IC250 | 8-752-079-80 | IC CXA2511AQ-T4 | |
| IC301 | 8-752-078-67 | IC CXA1946BQ-T6 | |
| IC302 | 8-759-711-82 | IC NJM4580E | |
| IC310 | 8-759-444-50 | IC TDA8574(T) | |
| IC350 | 8-752-067-30 | IC CXA1846N | |
| IC383 | 8-759-711-82 | IC NJM4580E | |
| IC410 | 8-759-444-50 | IC TDA8574(T) | |
| IC500 | 8-759-443-72 | IC RH5VL43AA-T1 | |
| IC501 | 8-759-495-76 | IC RN5VD33AA-TL | |
| IC502 | 8-759-347-50 | IC BA3918-V3 | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC503 | 8-759-540-27 | IC TA78DL06AS | |
| IC600 | 8-759-547-06 | IC MB90574PFV-G-135-BND | |
| IC602 | 8-759-449-89 | IC BA8270F-E2 | |
| IC700 | 8-759-486-44 | IC TDA7386 | |
| IC900 | 8-759-534-72 | IC MBM29F800TA | |
| IC901 | 8-759-547-61 | IC MSM534001E-14TSKFDR3 | |
| IC902 | 8-759-060-00 | IC BA10324AF | |
| IC903 | 8-759-538-27 | IC RSC-164 | |
| IC904 | 8-759-711-82 | IC NJM4580E | |
| IC905 | 8-759-058-62 | IC TC7S08FU(TE85R) | |
| IC906 | 8-759-082-58 | IC TC7W08FU | |
| IC907 | 8-759-058-64 | IC TC7S32FU(TE85R) | |
| | | < CONNECTOR > | |
| * J10 | 1-506-984-11 | PIN, CONNECTOR (PC BOARD) 2P | |
| | | < JACK > | |
| J500 | 1-566-822-41 | JACK (REMOTE IN) | |
| | | < JUMPER RESISTOR > | |
| J900 | 1-216-296-00 | SHORT 0 | |
| | | < COIL > | |
| L10 | 1-414-146-31 | INDUCTOR 2.2uH | |
| L12 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| L13 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| L14 | 1-410-999-11 | INDUCTOR CHIP 3.3uH | |
| L100 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| L102 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| L150 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| L500 | 1-410-513-11 | INDUCTOR 22uH | |
| L550 | 1-414-712-21 | INDUCTOR 1mH | |
| L700 | 1-416-712-11 | COIL, CHOKE | |
| L900 | 1-410-204-31 | INDUCTOR CHIP 10uH | |
| L901 | 1-410-204-31 | INDUCTOR CHIP 10uH | |
| L902 | 1-412-006-31 | INDUCTOR CHIP 10uH | |
| | | < EARTH TERMINAL > | |
| * LUG1 | 1-537-738-21 | TERMINAL, EARTH | |
| | | < TRANSISTOR > | |
| Q10 | 8-729-920-85 | TRANSISTOR 2SD1664-QR | |
| Q11 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q12 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q13 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q14 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q15 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q16 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q17 | 8-729-021-94 | FET 2SK1657-T1B | |
| Q50 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q51 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q52 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q53 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q60 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q80 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q201 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q202 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q203 | 8-729-931-13 | TRANSISTOR 2SD1858-P-TV2 | |
| Q204 | 8-729-903-46 | TRANSISTOR 2SB1132-P | |
| Q250 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q330 | 8-729-420-68 | TRANSISTOR 2SD1328-R-TX | |
| Q340 | 8-729-420-68 | TRANSISTOR 2SD1328-R-TX | |
| Q360 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q361 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q362 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q430 | 8-729-420-68 | TRANSISTOR 2SD1328-R-TX | |
| Q440 | 8-729-420-68 | TRANSISTOR 2SD1328-R-TX | |
| Q460 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q461 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q462 | 8-729-920-21 | TRANSISTOR DTC314TKH04 | |
| Q501 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q502 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q503 | 8-729-424-59 | TRANSISTOR UN2212 | |
| Q504 | 8-729-931-13 | TRANSISTOR 2SD1858-P-TV2 | |
| Q505 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q506 | 8-729-931-13 | TRANSISTOR 2SD1858-P-TV2 | |
| Q507 | 8-729-020-67 | TRANSISTOR XN1A312-TX | |
| Q508 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q509 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q510 | 8-729-424-08 | TRANSISTOR UN2111 | |
| Q511 | 8-729-424-08 | TRANSISTOR UN2111 | |
| Q512 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q550 | 8-729-019-03 | TRANSISTOR 2SB1202FA-T-TL | |
| Q551 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q600 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q601 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q602 | 8-729-424-18 | TRANSISTOR UN2113 | |
| Q603 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q605 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q606 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q700 | 8-729-424-56 | TRANSISTOR UN211L | |
| Q701 | 8-729-021-94 | FET 2SK1657-T1B | |
| Q702 | 8-729-021-94 | FET 2SK1657-T1B | |
| Q703 | 8-729-821-63 | TRANSISTOR 2SB1203FAT | |
| Q704 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q705 | 8-729-230-49 | TRANSISTOR 2SC2712-YG | |
| Q706 | 8-729-421-22 | TRANSISTOR UN2211 | |
| Q902 | 8-729-920-85 | TRANSISTOR 2SD1664-QR | |

< RESISTOR >

| | | | | | |
|---|---|---|---|---|---|
| R9 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R10 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R11 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R12 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R13 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R14 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R15 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R17 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R18 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R19 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R20 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R21 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R22 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R23 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R25 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R30 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R31 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R33 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R34 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R35 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R36 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R40 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R50 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R51 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R52 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R53 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R54 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R55 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R56 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R57 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R58 | 1-216-295-00 | SHORT | 0 | | |
| R60 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R61 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R62 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R63 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R64 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R65 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W (AEP,UK) |
| R65 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W (G) |
| R80 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R81 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R82 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R83 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R84 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R85 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W (AEP,UK) |
| R85 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W (G) |
| R100 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R101 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R102 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R104 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W (G) |
| R104 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W (AEP,UK) |
| R105 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R106 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |

## MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R107 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R108 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R109 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R110 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R111 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R112 | 1-216-295-00 | SHORT | 0 | | |
| R150 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W |
| R151 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R152 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W |
| R154 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R155 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R156 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R157 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R158 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R201 | 1-216-150-00 | RES,CHIP | 10 | 5% | 1/8W |
| R202 | 1-216-150-00 | RES,CHIP | 10 | 5% | 1/8W |
| R203 | 1-216-150-00 | RES,CHIP | 10 | 5% | 1/8W |
| R204 | 1-216-150-00 | RES,CHIP | 10 | 5% | 1/8W |
| R205 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R206 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R207 | 1-216-198-00 | RES,CHIP | 1K | 5% | 1/8W |
| R209 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R230 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R231 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R232 | 1-216-027-00 | METAL CHIP | 120 | 5% | 1/10W |
| R233 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R234 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R235 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R240 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R241 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R242 | 1-216-027-00 | METAL CHIP | 120 | 5% | 1/10W |
| R243 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R244 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R245 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R250 | 1-216-681-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R251 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R252 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R253 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W |
| R254 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R255 | 1-216-295-00 | SHORT | 0 | | |
| R256 | 1-216-295-00 | SHORT | 0 | | |
| R301 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R302 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R303 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R304 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R305 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R306 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R330 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R331 | 1-216-082-00 | RES,CHIP | 24K | 5% | 1/10W |
| R332 | 1-216-086-00 | RES,CHIP | 36K | 5% | 1/10W |
| R333 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R334 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R335 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R336 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R340 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R341 | 1-216-082-00 | RES,CHIP | 24K | 5% | 1/10W |
| R342 | 1-216-086-00 | RES,CHIP | 36K | 5% | 1/10W |
| R343 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R344 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R345 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R346 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R350 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R351 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R352 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R353 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R355 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| R356 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R360 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R361 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R362 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R363 | 1-216-689-11 | METAL CHIP | 39K | 0.5% | 1/10W |
| R364 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R365 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R366 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R367 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R368 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R369 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R370 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R371 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R380 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R381 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R401 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R402 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R403 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R404 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| R405 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R406 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R430 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R431 | 1-216-082-00 | RES,CHIP | 24K | 5% | 1/10W |
| R432 | 1-216-086-00 | RES,CHIP | 36K | 5% | 1/10W |
| R433 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R434 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R435 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R436 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R440 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R441 | 1-216-082-00 | RES,CHIP | 24K | 5% | 1/10W |
| R442 | 1-216-086-00 | RES,CHIP | 36K | 5% | 1/10W |
| R443 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R444 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R445 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R446 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R460 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R461 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R462 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R463 | 1-216-689-11 | METAL CHIP | 39K | 0.5% | 1/10W |
| R464 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R465 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R466 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R467 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R468 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R469 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R500 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R501 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R502 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R503 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R504 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R505 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R506 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R507 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W |
| R508 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R509 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R510 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R511 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R512 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R513 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R514 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R515 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R516 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R517 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R518 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R519 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R520 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R521 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R522 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R530 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R531 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R532 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R533 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R534 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R550 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R551 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R552 | 1-533-674-11 | LINK, CHIP IC (ICP-S0.5) 0.5A | | | |
| R553 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R560 | 1-216-005-00 | METAL CHIP | 15 | 5% | 1/10W |
| R600 | 1-216-295-00 | SHORT | 0 | | |
| R601 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R602 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R607 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R608 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R609 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R613 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R614 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R615 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R616 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R617 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R618 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R619 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R620 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R621 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R622 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R623 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R624 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R625 | 1-216-017-00 | RES,CHIP | 47 | 5% | 1/10W |
| R626 | 1-216-206-00 | RES,CHIP | 2.2K | 5% | 1/8W |
| R627 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R628 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R629 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |
| R630 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R631 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R632 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R633 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R634 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R635 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R636 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R637 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R638 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R639 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R640 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R651 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R652 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R656 | 1-216-295-00 | SHORT | 0 | | (G) |
| R657 | 1-216-295-00 | SHORT | 0 | | (AEP,UK) |
| R658 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R659 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R660 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R661 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R662 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R663 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R670 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R671 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R672 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R701 | 1-216-222-00 | RES,CHIP | 10K | 5% | 1/8W |
| R702 | 1-216-206-00 | RES,CHIP | 2.2K | 5% | 1/8W |
| R703 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R704 | 1-216-017-00 | RES,CHIP | 47 | 5% | 1/10W |
| R705 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R706 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R707 | 1-216-222-00 | RES,CHIP | 10K | 5% | 1/8W |
| R708 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R709 | 1-216-295-00 | SHORT | 0 | | |
| R710 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R711 | 1-216-206-00 | RES,CHIP | 2.2K | 5% | 1/8W |
| R712 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R713 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R714 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R715 | 1-216-121-00 | RES,CHIP | 1M | 5% | 1/10W |
| R780 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R781 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R900 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R901 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R902 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R903 | 1-216-025-00 | RES,CHIP | 100 | 5% | 1/10W |

**MAIN** **SUB**

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R904 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R905 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R906 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R907 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R908 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W |
| R909 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R910 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R911 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W |
| R912 | 1-216-065-00 | RES,CHIP | 4.7K | 5% | 1/10W |
| R913 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W |
| R914 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R915 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R916 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R917 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R918 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W |
| R919 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R920 | 1-216-686-11 | METAL CHIP | 30K | 0.5% | 1/10W |
| R921 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R922 | 1-216-097-00 | RES,CHIP | 100K | 5% | 1/10W |
| R923 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R924 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R927 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R928 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R930 | 1-216-675-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R931 | 1-216-686-11 | METAL CHIP | 30K | 0.5% | 1/10W |
| R932 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W |
| R933 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R934 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R935 | 1-216-089-00 | RES,CHIP | 47K | 5% | 1/10W |
| R936 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R937 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R939 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R942 | 1-216-049-11 | RES,CHIP | 1K | 5% | 1/10W |
| R943 | 1-216-295-00 | SHORT | 0 | | |
| | | < NETWORK RESISTOR > | | | |
| RB100 | 1-236-904-11 | NETWORK RESISTOR (CHIP) | 1.0K | | |
| RB601 | 1-236-904-11 | NETWORK RESISTOR (CHIP) | 1.0K | | |
| RB602 | 1-236-904-11 | NETWORK RESISTOR (CHIP) | 1.0K | | |
| RB900 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB901 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB902 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB903 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB904 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB905 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| RB906 | 1-239-412-11 | NETWORK RESISTOR (CHIP) | 100 | | |
| | | < CERMET RESISTOR > | | | |
| RV10 | 1-238-095-11 | RES, ADJ, CERMET | 470K | | |
| RV230 | 1-238-090-11 | RES, ADJ, CERMET | 10K | | |
| RV240 | 1-238-090-11 | RES, ADJ, CERMET | 10K | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < SWITCH > | |
| S600 | 1-571-478-11 | SWITCH, SLIDE (POWER SELECT) | |
| SW500 | 1-762-108-31 | SWITCH, PUSH (1 KEY) (NOSE DET) | |
| | | < THERMISTOR (POSITIVE) > | |
| TH600 | 1-801-792-21 | THERMISTOR, POSITIVE | |
| TH700 | 1-810-940-11 | THERMISTOR, POSITIVE | |
| | | < TUNER > | |
| TUX10 | A-3282-045-A | TUNER UNIT (TUX-012(E)) | |
| | | < VIBRATOR > | |
| X10 | 1-577-126-51 | VIBRATOR, CRYSTAL (7.2MHz) | |
| X100 | 1-577-101-11 | VIBRATOR, CERAMIC (4.19MHz) | |
| X150 | 1-760-556-31 | VIBRATOR, CRYSTAL (4.332MHz) | |
| X600 | 1-767-833-21 | VIBRATOR, CERAMIC (3.68MHz) | |
| X601 | 1-567-098-41 | VIBRATOR, CRYSTAL (32.768kHz) | |
| X900 | 1-781-090-21 | VIBRATOR, CRYSTAL (14.3MHz) | |

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|---|---|---|---|
| * | 1-669-656-11 | SUB BOARD | |
| | | ********** | |
| | | < CONNECTOR > | |
| CN800 | 1-779-170-11 | SOCKET, CONNECTOR 20P | |
| CN801 | 1-779-169-11 | SOCKET, CONNECTOR 18P | |
| CN802 | 1-778-330-21 | PIN, CONNECTOR (PC BOARD) 2P | |
| | | < DIODE > | |
| D899 | 8-719-422-64 | DIODE MA8062-M | |
| LED800 | 8-719-058-14 | LED CL-220PG-C-TS (CASSETTE WINDOW) | |
| LED801 | 8-719-051-01 | LED CL-170HR-CD-T (TIR) | |
| LED802 | 8-719-038-07 | LED CL-190PG-CD-T (⏏) | |
| | | < RESISTOR > | |
| R800 | 1-216-049-11 | RES,CHIP 1K 5% | 1/10W |
| R801 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R802 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R803 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R804 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R806 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R807 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R808 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| R809 | 1-216-025-00 | RES,CHIP 100 5% | 1/10W |
| | | < SWITCH > | |
| SW800 | 1-572-921-11 | SWITCH, KEY BOARD (RESET) | |
| SW801 | 1-771-027-11 | SWITCH, KEY BOARD (WITH LED) (⏏) | |

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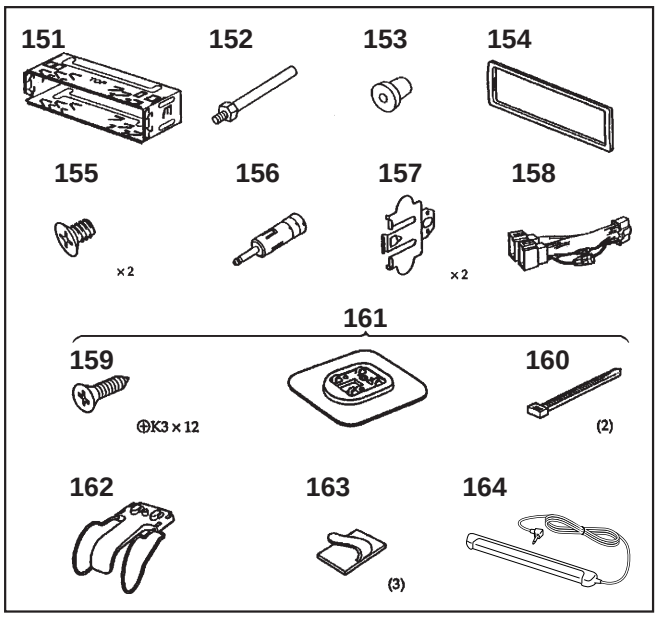
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * | 1-671-897-11 | SUPER CAPACITOR BOARD | |
| | | ********** | |
| | | < CAPACITOR > | |
| C1000 | 1-125-404-00 | DOUBLE LAYERS 0.47F | 5.5V |
| | | < CONNECTOR > | |
| * CN1000 | 1-506-984-11 | PIN, CONNECTOR (PC BOARD) 2P | |
| ********** | | | |
| | | MISCELLANEOUS | |
| | | ********** | |
| 17 | 1-783-495-11 | CORD (WITH CONNECTOR) (INVERTER) | |
| 18 | 1-777-246-11 | CORD (WITH CONNECTOR) (ANT) | |
| 23 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | |
| 30 | 1-783-884-11 | CORD, CONNECTION (MIC) | |
| F901 | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| HP901 | 1-500-157-21 | HEAD, MAGNETIC (PLAYBACK) | |
| M901 | A-3291-665-A | MOTOR ASSY, MAIN (CAPSTAN/REEL) | |
| ********** | | | |
| | | ACCESSORIES & PACKING MATERIALS | |
| | | ********** | |
| | 1-475-951-11 | REMOTE COMMANDER (RM-X4V) | |
| | 3-864-394-11 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SWEDISH,PORTUGUESE) (AEP,UK) | |
| | 3-864-394-21 | MANUAL, INSTRUCTION, INSTALL (FRENCH, GERMAN,DUTCH,ITALIAN) (AEP,G) | |
| | 3-864-395-11 | MANUAL, INSTRUCTION (ENGLISH,SPANISH, SWEDISH,PORTUGUESE) (AEP,UK) | |
| | 3-864-395-21 | MANUAL, INSTRUCTION (FRENCH,GERMAN, DUTCH,ITALIAN) (AEP) | |
| | 3-864-395-31 | MANUAL, INSTRUCTION (GERMAN) (G) | |
| | 3-864-429-11 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SWEDISH,PORTUGUESE) (for Voice Guide) (AEP,UK) | |
| | 3-864-429-21 | MANUAL, INSTRUCTION, INSTALL (FRENCH, GERMAN,DUTCH,ITALIAN) (for Voice Guide) (AEP,G) | |
| | X-3373-926-1 | CASE ASSY (XR) | |
| ********** | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ********** | |
| | | HARDWARE LIST | |
| | | ********** | |
| #1 | 7-621-772-30 | SCREW +B 2X6 | |
| #2 | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | |
| #3 | 7-685-794-09 | SCREW +PTT 2.6X10 (S) | |
| #4 | 7-685-105-19 | SCREW +P 2X8 TYPE2 NON-SLIT | |
| #5 | 7-624-104-04 | STOP RING 2.0, TYPE -E | |
| #6 | 7-627-553-17 | SCREW, PRECISION +P 2X2 TYPE3 | |
| ********** | | | |
| | | PARTS FOR INSTALLATION AND CONNECTIONS | |
| | | ********** | |
| 151 | 3-009-613-21 | FRAME | |
| 152 | 3-386-828-01 | SCREW, FITTING | |
| * 153 | 3-358-697-01 | BUSHING | |
| 154 | 3-022-310-01 | COLLAR | |
| 155 | 3-934-325-01 | SCREW, +K (5X8) TAPPING | |
| 156 | 1-465-459-11 | ADAPTOR, ANTENNA | |
| 157 | 3-027-138-01 | SPRING, FITTING | |
| 158 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | |
| 159 | 7-685-248-14 | SCREW +KTP 3X12 TYPE4 | |
| * 160 | 3-671-893-00 | CLAMP (LOW TYPE) | |
| 161 | X-3373-432-1 | BRACKET ASSY (for RM-X4V) | |
| 162 | X-3375-861-1 | HOLDER (MIC) ASSY | |
| 163 | 3-389-594-11 | CLAMP, CORD | |
| 164 | 1-475-982-11 | MICROPHONE UNIT | |



**Sony Corporation**
**Personal & Mobile Communication Company**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